Lieber Doktor!

Berg, Dienstag 11ten August, 184[illegible]

Da Theodor auch das Schicksal der meisten Belleviller erfahren, das heisst, das Fieber bekommen hat, und das Schreiben ihm Kopfweh macht, so muss ich wohl sein Amt übernehmen bis er wieder wohl genug dazu ist.

Ich war gestern auf der High Prairie, wo wir zuerst Asclepias glaberrima gefunden hatten, um zu sehen was noch da sei, aber ich konnte gar keine Blüthen mehr finden – denn die Pflanzen die überhaupt geblüht hatten, hatten schon fast ausgewachsene Kapseln, von den meisten aber hatte das Vieh schon vor der Blüthezeit die Spitzen abgebissen, was es so viel ich weiss bei A. cornuti und A. purpurascens nicht thut. Ich konnte nur 2 Fruchtexemplare finden, jedes mit 4–5 Kapseln.

Sollen wir nun die Kapseln grün (d. h. unreif) pressen, oder sollen wir sie so reif werden lassen dass der Samen zu gebrauchen ist und sie Ihnen dann schicken? Oder sollen wir einige unreif pressen und die übrigen zu Samen reifen lassen? Ich denke ich werde 30–35 Wurzeln finden können; wann ist denn die beste Zeit zum Aussetzen? Warum ist vielleicht Ihr im August gesammeltes Blüthenexemplar [illegible] glaberrima, eben weil es auf überschwemmt gewesenem Boden stand, etwas verspätet?

Ist denn die Rudbeckia mit dem eiförmigen Knopf und den hängenden Strahlen, Blätter fiederlappig, weitläuftig gezähnt, zum Theil gelappt?

Wo findet man denn die Makeln des Geranium maculatum?

Ich habe in Belleville gehört dass in der Nähe des Falling spring Juniperus virginiana wächst; nun war ich aber vor einigen Wochen dort, und konnte gar nichts Nadelholzähnliches bemerken. Sieht nicht vielleicht die Kapsel der des Cardiospermum halicacabum (?) ähnlich? Ich sah kleine Bäumchen mit solchen dreieckigen luftvollen Blasen, vergass aber davon mitzunehmen. War dieses vielleicht Juniperus, oder wachsen diese oben auf den Felsen? Was bedeutet denn halicacabum? wenn wir es anders recht gelesen haben.

Noch immer kein Regen. Der Barometer stand die ganze vorige Woche auf 29,6. Vorgestern regnete es ein wenig, jetzt steht er 29,55. Es versucht alle Tage zu regnen, aber es fallen immer nur ein paar Tröpfchen und dann hört es wieder auf.

Wir haben uns, ausser unserer grossen 12¼' langen Botanisirbüchse noch eine kleinere machen lassen um sie zu Ross zu tragen!

Ihr ergebener

Eugen F. Hilgard.

PAID 5

Dr. G. Engelmann.

St. Louis, Mo.

Hilgard, Eugen F.
1846, August 11th
Bellevville, Ill.

TRANSLATION

Bellevelle, Tuesday, 11th August 1846.

Dear Doctor,

Since Theodor suffered the same fate as most of the people in Belleville, that is he also has the fever and writing causes him headache, I had to take over until he is well again.

Yesterday, I went to the high prairie (last two words were in English) where we first found Asclepia glaberrina (not in Kew Index.Transl.), in order to see whether there were still some, but I was unable to find any flowers since the plants which were in flower already had ripe capsules, but from the cattle had eaten the flowers off most of them which, as far I as know, they don't do to A. Cornuti and A. purpurascens. I found only two fruit specimens, each with 4-5 capsules. Now, shall we leave the capsules green (i.e. unripe) or shall we let them ripen so that the seed may be used? I believe to be able to find 30-35 roots; what is the best time to plant? Was not the flower specimen also A. glaberrina since it also grew on flooded ground, a little later? What is the name of Rudbeckia with the egg-shaped head and pendulous pinnate leaves, rather dentate, partly lobed?

I heard in Belleville that Juniperus virginiana is growing near Falling Spring; but I was there last week and did not find any coniferous plants. Is the capsule similar to that of Cardiaspermum halicacabum? I saw little trees with such three-cornered airpockets, but forgot to take some with me. Perhaps, these were Juniperus or are they growing up on the rocks? What does halicacabum mean? If we read it correctly.

Still no rain, the barometer reading during the entire last week was 29.6. Day before yesterday, we had a little rain, now it is 29,5,5. It tries to rain every day, but only a few drops are coming down and then it stops.

We had a smaller botanizing drum made than our large one to be carried on horseback.

Sincerely yours,

Eugen F. Hilgard.

Recd May 9th
Ans May 10

Belleville, 7ten Mai 1847.

Lieber Doktor!

Ich habe heute bemerkt daß in einigen Stöcken Aristolochia serpentaria blühen wird, und damit ich zu rechter Zeit weiß was ich zu thun habe, schreibe ich Ihnen schon jetzt; ich kenne die Aristolochia erst seit vorigem Jahr, und weiß daher nicht recht was ein „gutes Exemplar" eigentlich heißt, wie viele Blüthen es haben muß, und dann, wie groß die Einzelnen Pflanzen eines aus zweien bestehenden Exemplars sein müssen? Könnten Sie mir vielleicht sagen, in welchem Theil des bottoms ich sie am häufigsten finden werde? Sie wäre hier gegen häufig genug, wenn ich nicht so viele competitors hätte, die Alles ohne Unterschied ausrauchen u. in die Apotheken bringen. Habe ich beim trocknen der Blüthen irgend etwas besonderes zu beobachten?

Der Sassafras ist fast trocken, u. die Hickoryrinde ebenfalls fertig; es thut mir aber leid sagen zu müssen, daß einige der weibl. Exemplare ziemlich schlecht ausgefallen sind; nämlich am Tag als ich sie sammelte, fand ich in der Nähe der Farm lauter Bäumchen mit ganz kleinen Blüthenbüscheln so daß ich zuletzt zu glauben anfing, die weibl. Blüthenbüschel seien überhaupt kleiner als die männlichen, und eine Anzahl einlegte; und als gegen Abend fand ich größere Büschel, u. nahm mir vor, den andern Tag noch die schlechteren Exemplare mit diesen zu ersetzen; aber den nächsten Tag hatte ich das Fieber, u. ehe ich wieder auf einen Baum steigen konnte, war die Blüthe vorbei. Indessen habe ich in viele Bogen anstatt 4, 5-7 Exemplare gelegt, und diese nur zu 4 gerechnet, so daß ich einen Theil davon durch diese werde ersetzen können.

Zu welcher Zeit soll ich denn die Sassafrasfrüchte sammeln? Zu lange darf ich sie wohl nicht werden lassen, sonst habe ich so lange daran zu trocknen wie voriges Jahr an einer Uvularia, die wir 2 Monate u. 2 Wochen unter der Presse hatten. Acer saccharinum u. Juniperus virg. haben ~~sie~~ die noch

schon selbst getrocknet; sonst könnte ich, wenn der [illegible] nicht in dieselbe Zeit fällt, noch allenfalls die Früchte des Acer trocknen.

Daß Schaal nach einer stürmischen Reise v. 62 Tagen glücklich angekommen ist, werden Sie wohl schon erfahren haben.

Ergebenst Ihr

Eugen Hilgard.

NB. Antworten Sie mir doch sobald Sie können, denn die Aristolochia könnte doch eher zur Blüthe kommen als ich denke.

5

Dr. G. Engelmann

St. Louis. Mo.

BELLEVILLE ILLS.

8

Hilgard, Eugen.
1847, May 7th
Belleville, Ill.

TRANSLATION

Belleville, 7 May 1847.

Dear Doctor,

I realized today that Aristolochia serpenraria will be in bloom within in few weeks and so that I know in time what I have to do, I am already writing now; I have knon Aristolochia only for a few years and, therefore, don't know what is a "good specimen, how many flowers it is supposed to have and then how big the single plants consisting of two specimens have to be"? Can you perhaps tell me which part of the bottom is the best to collect the most? It is common enough here, if I didn't have so many competitors who tear up everything without distinction to bring to the apotecaries. Do I have to do anything special ~~in~~ to dry~~ing~~ the flowers?

The Sassafras is almost dry and the oak bark is also almost ready; I am sorry to have to tell you that ~~the~~ some of the female specimens turned out pretty bad; on the day I collected them I found near the farm only little trees with small flower clusters so that I finally believed that the female flowers are always smaller than the male and I collected a number; then later in the evening I found larger clusters and intended to add those to the bad specimens the next day; but next day I had an attack of fever and before I could climb a tree again, the flowers were gone. On the other hand, I have many sheets more instead of 4, 5 and 7 so that I am able to compensate.

At what time of the year should I collect Sassafras fruits? I believe I should not wait and let them become too thick since then it would take a long time to dry them which happened last year with an Uvularia which we had in the press for 2 months and 2 weeks. Acer saccharinum and Juniperus virg. you dried yourself, otherwise I could also dry the fruits of Acer if the Sassafras would not come up at the same time.

You will probably already know that Scheele arrived safely after a stormy trip of 62 days.

Sincerely,
Eugen Hilgard

NB. Please answer me as soon as possible since the Aristolochia might be in bloom earlier than I believe.

Rec^d Feb 10 Oxford, Feb. 7, 1859
Ans May 31

Lieber Doctor!

Ich habe hier ein treffliches Mikroskop aus der Fabrik von Merz & Söhne in München – 6 Objectiv-linsensysteme (von je 3 Linsen), 3 Okularen, Micrometer (Glas-), Camera lucida etc. Vergrößerung 80 – 1200.

Das Instrument kaufte mein gewesener Vorgänger, zugleich mit noch einem andern [illegible], das für alle Zwecke eines Geological Survey über-flüssig erscheint – im Ganzen für ca $250 Microscope, und $1200 die für Errichtung eines chem. Laboratoriums bewilligt waren. Das Geld ist fort und kein Laboratorium da; nun möchte ich das Microskop verkaufen, um wichtige Dinge dafür anschaffen zu können, und da möchte ich dich fragen, ob du es brauchen kannst oder jemand weißt. Es ist ein bargain, denn es wurde für den Staat zollfrei importirt, was ungef. $45 ausmacht. Es hat den Staat

etwa $200 gekostet; ich gebe es für
$150 cash. Wenn Du mir nun einen
Abnehmer verschaffst, so wirst Du mir
einen großen Gefallen thun, denn ich bin schrecklich in der Klemme um Gelder.

Man sagt die europäische Reise hätte auch
Deinen ganz vortrefflich zugeschlagen. Das
walt Gott! Grüße Dora und Georgy herzlich von mir und schreibe bald deinem treuen
Vetter

Eug. W. Hilgard.

Dr. Geo. Engelmann.

Eugen W. Hilgard

Hilgard, Eug. W.
1859, February 7th
Oxford, Miss.

TRANSLATION

Oxford, February 7, 1859

Dear Doctor,

I have here an excellent microscope from the manufacturing firm May & Söhne in Munich. ...

This instrument was bought by my genius predecessor together with another smaller one for all purposes of a geological survey; microscopes for about $ 250.00 out of $ 1200 which was granted for the foundation of a chemical laboratory; Now I want to sell the microscope and to buy other necessary things and should like to ask you whether you might need it or whether you know of someone who would want it. It is a bargain since it was imported free of duty for the state which would amount to $ 45.00. However, it still costs the state $ 200, I would give it away for $ 150 in cash. Should you find a customer, you would do me a great favour since I need the money badly.

I heard that the European trip was a success, I hope so. Give my greetings to Dora and Georgy and write soon to your faithful cousin

Eugen W. Hilgard

Dr. Geo. Engelmann.

Rec Apr 19 Lager in Chickasaw co., Miss.
10ten April 1859

Lieber Doctor

Deinen Brief v. 31ten März
erhielt ich gerade vor meiner Abreise von
Oxford, vor 5 Tagen. Wie Du aus dem
Datum ersehen wirst, bin ich wieder auf
einer Wanderung begriffen, die diesmal
sich bis zur Seeküste erstrecken soll und
über 3 Monate dauern wird; den größten
Theil des Jahres werd ich in Oxford, im La-
boratorium zubringen.
Quoad [illegible], so hab ich es schon
vor einiger Zeit meinem Agenten in N.Y.
zu bestmöglichem Verkauf zugesandt. Ich habe
das Instrument auf seine Definitiven bei
starken Vergrößerungen geprüft und fand
dessen Leistungen sehr befriedigend; würde
es gern behalten, wenn ich nur könnte.
Ich habe mich [illegible]

wohl mit Schlangengift versehen, und werde
nach Möglichkeit benennen; auch bist Du sehr
welcome to Doubletten, soweit sie sich ermög-
lichen lassen. Ich fürchte aber sehr daß die mei-
nen Standpunkt hauptsächlich der botanik nicht
entgegengesetzt. Ich kann es nicht wohl als
offizielle Beschäftigung, sondern nur als Pri-
vatsache betrachten, zu Zeiten die ich als mein
Recht wegen meiner eigenen ansehen darf. Mein
Magen ist schon so sehr zu schwer gebunden für
einen Gebrauch; ~~und~~ ich kann daher nicht viel
Sogar unternehmen, besonders auch wegen Mangels
an Kisten. Alle Spiele die vorkommen zu
sammeln, erlaubt mir weder Raum, Sogar
noch Zeit; ich sammle daher speziell als Haupt-
lich die welche mir neu sind, denn mehr kann
ich nicht durchführen; auch kann ich mir nicht
die Zeit nehmen vollständige Floren aus-
zuführen sondern nur das notwendige es
sich en passant gibt. Es mag mir daher
allerdings, wie Du sagst, vieles entgehen
aber ich kann das eben nicht ändern!

Du wirst wohl mitunter über meine Zettel
gelacht haben; mußt aber bedenken daß
ich dieselben stets in Eile, ohne Zeit zur
Untersuchung, und ohne andere Hülfsmittel
als Blick und Gedächtniß schreiben mußte,
und das mehrere ich die specielle Botanik
seit Jahren nicht mehr angesehen, und die
meisten mir früher bekannten Species seit
10 Jahren nicht gesehen hatte, während seit-
dem Lateinisch und Englisch sich in meinem
Kopf eingebürgert. Ich hätte überhaupt in
der Regel keine Namen hinzuschreiben, hätte
ich nicht irgend eine Bezeichnung haben müssen
um die geographischen und Bodenverhältnisse
der Pflanze in meinen field notes nieder-
legen zu können. Unter diesen Umständen
wirst du hoffentlich die vorgekommenen
misnomers zu verzeihen wissen!
Ich wollte du könntest mir eine bequeme
Pflanzenpresse angeben, der sich ohne viel Mühe
öffnen und schließen ließ und doch die Pflanzen
gut u. gleichmäßig preßt. Die alte Kreuzschnur
u. Pappendeckel habe ich en disgust weggewor-

geben; ich habe jetzt 2 Stücke mit Pappen-
deckel bespannte Rahmen, die durch 2 Leder-
riemen mit Schnallen zusammengezogen
werden. Das ist etwas besser, aber doch noch
lange nicht the thing das man auf Reisen
haben sollte. Wenn ich statt Schnallen oder
Bindfaden den Strick am zuverlässigsten brauchte,
möchte ich eine Schl. anlegen, so könnt ich
1/3 mehr heimholen. Gibt es in dieser Zeit
der Eisenbahnen und Telegraphen noch keinen
highly improved patent self-acting Pflanzen-
gerüst erfunden?
Grüße Dora u. Georgy von mir und sei
selbsten bestens gegrüßt von deinem Vetter
Eug. W. Hilgard.

Hilgard, Eug. W.
1859, April 10th
Chickasaw Co., Miss.

TRANSLATION

Camp in Chickasaw Co., Miss.
10 April 1859.

Dear Doctor,

Your letter of March 31st arrived just before my departure from Oxford, five days ago. As you will see from the date, I am again wandering around, this time to the coast which will take about 3 months; the greatest part of the year I shall spend in the laboratory in Oxford.

I sent the microscope some time ago to my agent in New York for sale at the best price. I tested the instrument for its enlarging power and found it very satisfactory; should like to keep it if I could.

This time I took with me more plant paper than usual and shall collect as much as possible; you are also welcome to all duplicates, if possible. But I am afraid that Theo did not explain to you my standpoint with regard to botany. I cannot do it as official business, but only on the side, at times which rightfully belong to me. As it is, my wagon is already loaded almost to capacity with my things; therefore, I cannot take with me too much paper, especially also because of space. The space I have, the paper and lack of time do not permit me to collect all species I find; so I shall collect what I think best, since I cannot do any more; also, I cannot take time to look for complete floras, but only what I can collect on my way. As you say, I might miss many things, but there is nothing I can do under the circumstances.

You must have laughed sometimes about my labels, but you must realize that I always wrote them in a hurry without enough time to study and without any other tools than my eyes and memory; and that after I have not looked up any botany for years and the species I remembered for almost 10 years have been replaced by thousands of foreign ones. Actually, I would not have written down any names if I did not have to give some designation to enter in my field notes with regard to the geographical areas and soil donditions. Under these circumstances you will have to excuse these misnomers!

I wish you could let me know about a more comfortable press which is easy to open and close and still presses the plants evenly. The old cross pack and cardboard covers I have given up in disgust; I have now two strong frames which cardboards kept together by two leather belts. This is a little better, but still not the thing to travel with. If I couldjust close the package without belts or binders after I put in a plant, I could collect 1/3 more. Hasn't someone invented in these days of railroads and telegraph an improved self-closing plant press or package?

Greetings to Dora and Georgy from me and greetings to you from your cousin

Eug. W. Hilgard

Rec^d Nov 14th

Nov. 2, 1862.

Dear Doctor

I transmit this by the favor hand of Mrs. W. F. Stearns, under whose friendly roof we have been living for six months past. She goes farther North, accompanied only by the baby - like herself, our special friend. She expects to meet friends and relations at St. Louis, who will give her such aid and comfort as she may need; but if by any chance she should be disappointed, you will do me an especial favor by taking her under your protection. At all events, if a stray brother or sister of mine should still be in St. Louis, and they or you should want to know all about us,

they would be gratified in this as well as in other respects by making the acquaintance of Mrs. S. She will remain in your city but a day or two, and I would therefore ask you to send a message immediately to Theodore Rosa or Hittmann, if they are within reach. Not having any intimation as to the latter point, I do not write to them directly; they will hear via the East. I have only time to say, that we are well and in the best spirits the times will admit of; would take it as a favor if you all would quit fighting, but can stand it a little longer. My wife joins me in hearty greetings to yourself and lady to whom she took quite a fancy. Give my

greetings also to the Academy, from whom I don't consider myself seceded. Hope we will all meet again in better times, not far off. Good bye!

In haste, yours sincerely

Eug. W. Hilgard.

Dr. Geo. Engelmann.

Rec. Octob 3d Oxford, Miss. Sept. 23, 1865
Ans Octob 9th

Vtis!

Lieber Doctor!

Entschuldige daß ich, ein kaum vernünftiger Rebelle, einen so bezahlten Bürger wie du mit meinen Angelegenheiten behellige. Es wäre unverzeihlich, könnte ich nicht die liebe Wissenschaft als Fürsprecherin mitbringen, sowie den Umstand, daß du unter all den gescheidten Herren in St. Louis bewiesen, den stabilsten Geist [illegible].

Doch, Tyrell beiseite, obwohl ich seit dem Ende des Krieges einen ganzen Brief von Kohn erhalten habe, weiß ich doch nicht [illegible] als die Dinge; weil auch das Zitternieren abgelaufen war und vielleicht noch ist, u daß mein Bruder Theo wahrscheinlich die Postoffice nicht allzuhäufig besucht; daß also, wo es sich um Geld und Pfandbriefe handelt, ich gegenwärtig am besten thun muß auf deine Güte zu verlassen. Der Fall steht einfach so: Mein unglücklicher "Report" liegt,

wie du vielleicht weißt, des Kriegs-
gefangener seit 4 Jahren bei Hogan in
St. Louis. Diese Verschaffung, und Vollend-
ung des Einbandes, hängt wesentlich ab von
meinem relief act das ich der Legislatur bei
der nächsten Sitzung (16ten Oktober) vorzubringen
hoffe. Hierzu ist mir wesentlich nothwendig,
daß der Report selbst zu Hand sei, um für sich
selbst zu sprechen; und unter obwaltenden Um-
ständen, so wenig es zu meinen jetzigen Ein-
nahmezustand paßt, muß ich das Lohngeld für
die nöthigen 100 copies zahlen. Für den
Einband derselben rechnet Hogan $27; ich
schreibe ihm heute, er solle mir die 100 copies
anfertigen u. zuschicken, u. dir die Rechnung
vorlegen, die du bezahlen würdest. Zu diesem
Zwecke sende ich dir einliegend einen check
für $30, die wohl ausreichen werden um
auch die Einbandlage, drayage etc. zu bezahlen;
auch sollte er aber 25 "gilt seal copies", die
ich ihm auftrug herzurichten, besonders aufstellen
sollte, dies zu berücksichtigen (sie sollten $2.00
pr. 100 mehr kosten).

Es ist zwar in Hogan's eigenem Inter-
esse, die Kiste nicht öffnen zu lassen; aber es
wäre doch besser, ihn ein bischen auf die Finger
zu sehen, da sie für mich speciellen Werth hat,
und du thätest mir einen speciellen Gefallen,
wenn du ihm einen officiellen Besuch abstatten
oder abstatten ließest. Ich habe ihm angegeben,
er solle die Kiste via Steamer nach Vicksbg
u. der gr. R. R. nach Jackson senden, an Gov.
Wm L. Sharkey.
Kürzlich hatte ich den Besuch eines Deiner an-
hänglichsten Verehrer, Col. A. E. Rey-
nolds v. Tishomingo co. Miss., den du
wohl zuerst in Gratiot St. hast kennen
lernen. Er ist ein guter Kerl, kann dich
nicht genug loben, und ist Kandidat für das
Congress-House Rep's-, wozu er wahrschein-
lich gewählt wird. Er trug mir alle möglichen
Grüße an dich auf.
Fürs Erste bin ich, wie du siehst, noch auf dem
alten Flecke, u. hoffe daß mich die liebe Legis-
latur da lassen möge. Nächstes Frühjahr tritt
nämlich der Friedenszustand des Congresses in

in Wirthschaft, wenn sie zu der Haltung oder
ich sie für jetzt wünschen kann, und daher all
we ask is to be let alone. Dazu mußt mein
Report mit helfen; eine schlimmere Kalle kann
ich indessen meine Professur hier vermehren.

Die Lehranstalt hier wird nämlich zwar am 2ten
Oct. eröffnet aber nur mit halber Facultät;
die naturwissenschaftlichen Stellen sind noch unbesetzt. Unter den Candidaten für Physik ist
Prof. Bristoe, Univ. of Mo. Kennst du ihn?
Ich wäre über ihn sagen, so wäre es mir lieb.

Wo ist denn dein Bruder "Eugen", und was macht
er? Sag ihm er solle mir ein Lebenszeichen geben;
ich sei jetzt loyal to the core. Was macht denn
Shumard? Grüße ihn von mir. Blüht auch die
Academia noch?

Triffst du unser Theodor und Rosa, so grüße
sie schönstens und sag ihnen, sie könnten
wohl ein bischen schreibseliger sein!

Vor Allem grüße die gute Dora freundlichst
von uns beiden; mein Georgie der wohl seinem
Papa über den Kopf zu wachsen anfängt; und sei
selbst ein bestens gegrüßt von deinem Vetter

Eug. W. Hilgard

Hilgard, Eug. W.
1865, September 23rd
Oxford, Mississippi

TRANSLATION

Oxford, Miss. September 23, 1865.

Dear Doctor,

Please forgive me that I, a hardly paroled rebel take the liberty of writing to you, a loyal citizen, about my affairs. It would be inexcusable if I did not have our dear science as a recommendation as well as the circumstance that you among all the people in St. Louis are the most solid---one always knows where to find you.

But joking aside; even though I have received since the end of the war a letter from Rohr, I still don't know any exact addresses except yours; also now that Zittmerer was absent and perhaps still is and that my brother Theo probably did not go too often to the post office; so I best just trust your kindness with regard to helping me with money and other property. The case is very simple: my unfortunate "Report" has been, as you may know, a prisoner of war at Hogan's in St. Louis for the last four years. His changes and completion of the binding is mostly dependend on the relief act which I hope to get from the Legislature at the next session (16th of October). For this reason it is, of course, very necessary that the report is present, so that it can speak for itself; and under the present circumstances, even though it hurts my financial circumstances, I shall have to pay the ransom for the necessary 100 copies. For the binding, Hogan counts $ 27.00; I am writing him today that he should pack up and send the 100 copies to me and to give you the bill and that you would pay it. For this reason, I am enclosing my check in the amount of $ 30.00 which would probably also cover the packing and freight; also, should he bill more for the 25 "gilt seal copies" which I asked him to prepare, I ask you to pay this (they are supposed to cost $ 2.00 more).

It is in Hogan's interest not to let the matter sleep, but it would be better to watch him a little bit since I am in a hurry and you would do me a special favor if you would pay him an official visit or sent sombody to him. I gave him special orders to send the box to Veikty by steamer and from there to Jackson by Railroad to Gov. Wm. L. Sharkey.

Recently I had a visit form one of your most enthusiastic admirers, Col. A. E. Reynolds of Tishoming Co., Miss., whom you probably met first in Gratiot St. He is a good fellow, could say enough good things about you and is a candidate for the Congress--House Rep's--where he also will most probably go. He asked me to send you all kinds of greetings.

For the time being, as you you see, I am still at the same place and hope to stay here if the dear Legislature will let me. Since next spring the Survey starts again because of the end of the war, which is as good a position for me as I could

wish, therefore, all we ask is to be left alone. My report has to help to accomplish this; should the worst happen, I can take a proffesorship here.

The courses here will start 1st of October, but only with half the faculty; the natural science positions are still vacant. Among the candidates for physics is Prof. Tristoe of the Univ. of Missouri. Can you tell me something about him, if so, I should appreciate it. Where is your brother and what is he doing? Tell him to let me hear from him, and that I am loyal to the core. What is Shumard doing now? Give him my greetings. Is the Academy still flowering?

Should you see Theodor or Rosa, give them my best greetings and tell them they could write a bit more!

Above all give my greetings to dear Dora from both of us as well as to Georgie who probably has grown over your head in the meantime; and best greetings to you from your cousin,

Eug. W. Hilgard.

V. vulpina [illegible] Torr. & Gray

Eugene Hilgard, Oxford, Mi Nov 1865

Vitis rotundifolia – Muscadine – is so pronounced a species that the most superficial observer distinguishes it at a glance from every species but the Scuppernong, which differs from it merely in the color & texture, as well as flavor of the fruit.

Its angular knotty stem, smooth grey bark, rectangularly diverging branches, small undivided leaves with sharp, salient teeth; its umbellulate racemes globular when in bloom; its purplish berry of the size of a plum or large cherry, not glabrous, but with whitish points all over the surface; its thick [illegible]aceous skin, within which the sour, solid, pale green pulp surrounding the seeds, seems to swim in a sweet, colorless juice, like the yolk in the white of an egg; finally its delicious muscatine flavor – all this distinguishes it prominently from all other indigenous species. Cissus bipinnata, abstracting from its leaves, resembles it most in its habitus & fruit.

The peculiar flavor resides in the integument; I doubt that it exists at all in the juice extracting not in the pulp. The natural juice is very sweet, but when pressed out, it mingles with the

sour fluid of the pulp; hence the wine made in this way from the Muscadine requires addition of sugar to make it palatable, and possesses but in a very slight degree the flavor of the berry. When allowed to ferment with the skins & seeds, the wine obtains the flavor but becomes intensely bitter, a quality inherent in the seeds by themselves, but acquired by the skins also while undergoing a kind of fermentation resembling that of some kinds of apples, and which renders the whole berry, skin & all, uniformly soft & mushy. It is not therefore a good wine-grape, but makes the most [illegible] brandy. As with the Scuppernong, the various racemes or even the berries of the same raceme, ripen at different periods, so that the ripe fruit is obtained from beginning of Sept. to middle of October, usually. When ripe it is easily shaken off its frail peduncles, and when falling from any considerable height, usually bursts open by its own momentum. — It is rarely the case that any of the sub-umbels ripens more than 3 – 4 berries.

With the Scuppernong of N. C. I am not sufficiently familiar to give you any data but what you doubtless know.

"Vitis aestivalis": Grows prevalently in the uplands. Corresponds to description in Darbys Botany, save in that the leaves are not usually decidedly ferruginous, and sometimes (on the late shoots) can scarcely said to be lobed at all. In the uplands, the racemes are usually more closely packed than in the lowlands where it also occurs, side by side with V. rotundifolia (Muscadine) and V. riparia (?); but then its racemes are much more loose, the berries smaller and less invested with whitish "Duft," which is very striking in the racemes which have ripened well exposed to the sun. These differences occur on one and the same vine. Ripens here from end of August to end of September, according to locality. Size of berries from 0.4 to 0.5 inch, quite sweet when full ripe and grown on uplands, and without any but the general "grape flavor"; flesh sap-green.

"*Vitis riparia*." This species as occurring here, has ~~some~~ of the characteristics both of V. riparia & V. [illegible]folia Mich. as given by Darby. Leaves decidedly cordate, though not as deeply as V. aestivalis; decidedly acuminate; teeth ditto, and decidedly tending towards the *serrate* shape, whereas in V. aestivalis there is a tendency to the *crenate*. Both surfaces ± glabrous, the upper one most so; petioles, margins, & veins pubescent. Racemes **loose**, with long lateral peduncles; berry black, *without "Duft"*, 0.3 to 0.4 inch in diameter, with purplish flesh, and a very decided *flavor resembling Ribes nigrum*; much more sour in general than that of V. aestivalis, and much more juicy, the seeds smaller. Rarely found out of the bottoms; its habitus not much different from V. aestiv., so that without leaves & fruit, it is not readily distinguished. Its bark does not scale off to the same extent as in V. aest., and in its mode of ramification it bears a slight resemblance to the Muscadine.

Eugene Hilgard, Oxford. Mi
Nov 1865

Rec. May 7
Ans. " 9

Oxford, Apr. 30, 1866.

Lieber Doctor!

Dein Brief vom 9ten ult. kam s. Z. zu Handen, und ich sage Dir dafür meinen besten Dank – es traf sich gerade daß ich an demselben Tage einen Brief erhielt v. Barksdale, dem Drucker meines Report, um Hogans Adresse fragend, die ich ihm sogleich gab, nebst Mittheilung des betr. Inhalts Deines Briefes. Barksdale schrieb ihm sogleich, hat aber wie er mir in einem kürzlich angekommenen Brief sagt, zu seiner Verwunderung noch keine Antwort erhalten, und ersucht mich selbst an Hogan zu schreiben. Aber wenn H. ihm, dem Contraktor, nicht antwortet, oder seine Briefe nicht erhält, wozu sollen dann meinige nützen?

Ich kann daher nur Dich bitten, bei nächster Gelegenheit Hogan zu sagen, daß B. zweimal an ihn geschrieben hat ohne Ant-

ist zu erhalten – daß B. keinen Kurz[illegible]
Fondgang zur Auslösung der 2000
Francsbons, die schon gekauft, zu Gebote
stehen werden, und daß innerhalb dieses
Jahres gewissenhaften über den Rest Ver-
fügung getroffen werden wird. Die Schwierig-
keit liegt in dem stay-law, sowie dem
fast gänzlichen Ruin Bs durch den Krieg;
aber die Supreme Court wird binnen
einigen Wochen jenes Gesetz als uncon-
stitutional bei Seite setzen, und B. ist
damit beschäftigt any quantity of cotton zu
[illegible]. Also soll H. nur ein bischen
Geduld haben, if he pleases.

Public spirited men haben hierzulande
durch den Krieg Alles eingebüßt – Conf. Bonds,
[illegible], stehen nicht sehr hoch in Grundeigenthum.
Doch [illegible] sich in solchem Fall wohl hier
so gut halten als anderswo.

Ich will dieses Jahr die Vitis arten in der
Blüthe an beobachten, soweit es meine
sehr in Anspruch genommene Zeit er-
laubt. Ich hatte letzten Herbst eine Reise

Fruchtstock geschrumpft und so schön getrocknet,
daß nur der Vorrat einige Bemerkungen für
den Rosinen verschaffen – sonst hätte ich
die eine Sendung erhalten. Wenn erst die
Eisenbahnverbindung mit Columbus hergestellt
sein wird, werde ich dir u. Ihnen meine
letzte Sammlung v. der Seeküste, 1859,
zusenden können. Da sind viele Scirpus-
arten und auch d. Nuphar von Pasca-
goula, die einzige Species die ich bis
jetzt in Missi. gesehen – d. h. outside
of the bottoms, wo ich noch nicht gewesen
bin. – Ich habe stark im Sinn, die Staats-
geologie an den Nagel zu hängen und
einfacher Professor der Chemie zu werden
dann habe ich mehr Zeit zum Studium u.
unvergleichlich weniger Ärger.
Zum Beweis daß ich mich deines Auftrags
hinsichtlich der Vitis beflissen habe, folgen
hier einige Zettel die jenen aufgegriffenen
Exemplaren beigelegt werden sollten.
Ob sie etwas für dich Neues enthalten –
weiß nicht – es gibt in den bottoms noch

mehr Varietäten als die hier beschriebenen
Species, ob aber auch mehr Species begründet
ist zweifelhaft, experientia docebit.
Adieu, grüßen Sie freundlichst von uns —
ich hoffe, daß wir Ihnen auch einen
Besuch abstatten zu können, so bald sich
aber nicht so gestaltet wie es scheint.
Was soll denn mit der Cholera werden?
Between Cholera, blattern, Trichinosis
und schlechten Zeitverhältnissen, ist es wohl
genug zu thun hier für diesen Sommer?
Ihr tr. Vetter
Eug. W. Hilgard

Dr. G. Engelmann.

Hilgard, Eug. W.
1866, April 30th
Oxford, Miss.

TRANSLATION

Oxford, April 30, 1866.

Dear Doctor,

I received your letter dated the 9th of last month and thank you for it---it just so happened that I received the same day a letter from Barksdale, the printer of my Report asking for Hogan's address which I gave him immediately after having read the information you gave me in your letter. Barksdale wrote to him immediately, but as he told me in his latter, he was surprised not to have received any answer, and asked me to write to Hogan myself. However, if Hogan did not answer him, the contractor, or did not receive his letters, what good would it do if I wrote him?

Therefore, I can only ask you to tell Hogan at the next opportunity that B. wrote him twice, never received answer---that B. willhave funds for the 2000 copies already bound and that there will be no doubt that within this year some arrangements will be made with regard to the rest. The difficulty is the so-called "stay law" as well as the almost total destruction of B's through the war; but the Supreme Court will put an end to this law as being unconstitutional and B. is busy raising large quantities of cotton. Therefore, Hogan should just have alittle more patience, if he pleases.

Public spirited men here have lost almost everything during the war--conf. Bonds don't bring a good price.

I intend to study this year the Vitis species in flower as far as my limited time permits. Last fall, I collected a number of fruits and dried them beautifully so that one day some brats ate them as raisins--otherwise you would have received a shipment. As soon as the railroad connections to Columbus will again be established, I shall send you and Theo my last collection from the sea coast, 1859. This contains many Scirpus species and also Nuphar from Pascagoula, theonly species I have seen up to now in Miss., i. e. outside of the bottom where I have not been yet. I am thinking seriously of giving up the state geology and just to become a chemistry proffessor, then I would have more time and considerably less worries.

To prove that I did what you told me with regard to Vitis I am enclosing some labels which were supposed to accompnay my specimens which were eaten. I don' t know whether they contain anything new to you---in the bottoms there are still more varieties as the species described here.

Adieu, give our friendly greetings to Dora--I hope to visit you this summer, but it seems very improbable. What about the cholera? Between cholera, smallpox, trichomoniasis and bad drinking water you will probably have enough to do this summer?

Your faithfull cousin
Eug. W. Hilgard.

Rec^d Aug 21st

Oxford Miss. Aug 19, 1866.

Lieber Doktor!

[illegible]

[illegible] acerifolia, und V. cordifolia [illegible] glabrous [illegible] pubescent. racemes [illegible] [illegible]

[illegible] acerifolia [illegible] cordifolia [illegible] 14 [illegible] V. cordifolia [illegible] Racemes loosely panicled, [illegible] pubescent. [illegible]

[illegible]

[illegible] Compilation [illegible]

[illegible]

[illegible] für Prof. [illegible] zu senden, [illegible]
[illegible]
[illegible] Dr. Hough[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] medical college [illegible]
[illegible]
[illegible]
[illegible] Ph. D.
von Göttingen [illegible]

[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] Polarisations apparat (Saccharimeter) [illegible]
[illegible] 2 Mitglieder der Gesellschaft [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

[illegible]
[illegible]
[illegible]

[illegible] Hilgard

Hilgard, Eug. W.
1866, August 19th
Oxford, Miss.

TRANSLATION

Oxford, Miss. August 19th, 1866.

Dear Doctor,

It is awful that I have not yet answered your letter of May; on the other hand, I did everything possible with regard to your wishes concerning the grapes. But I have to tell you that in this vicinity there are only few varieties. I can only distinguish two, namely: *V. aestivalis* and *V. cordifolia*, Michx. (the riparia as I told you told you before) according to Darby's description; Leaves always glabrous, never pubescent, *racemes very loose*. Then I saw at Pearl River near Jackson a Vitis which flowered later than even *V. aestivalis*; the great difference between Oxford and Jackson, three weeks af er *V. cordifolia* here--and I saw it in its first bloom 14 days after the last *V. cordifolia* lost its flowers here. Racemes closely packed, the leaves "petiolis, margis & veras pubescent". But you will see the species number, but I don't know whether I shall be able to collect fruits of the latter species. It would probably be Michx' *V. riparia*.

Thanks for the Transactions of the St. Louis Academy; which by the way exists mostly of your contributions. However, Shumard's catalogue is valuable as a compilation.

Some times this fall, I intend to send you and my brother a pack of plants from southern Mississippi for determination. I have nowan assistant who is much interested in botany and who will probably contribute more every year; for this year we have money to go into the field. It is very probable that I might give up my connection with the Survey completely, for many reasons; I should prefer to become professor of chemistry, however many complications are in the way. Can you tell me something about the famous chemist Dr. Maugh of S t . Louis who is a very militant candidate against me. He might be a good physician, but to declare himself an expert in chemistry when chemistry has to be studied in all its aspects, seems to be a little baroque for somebody who besides in his medical college is not known as a chemist at all. But he is an Army man---that is the whole joke. Tell me what you know about him. In case of my resignation, my assistant would become chief; he is a good man, Ph. D. from Göttingen where he was a student of Wöhler's.

Could you give me some information about the so-called penny royal oil as it is called commercially, namely whether it is derived from *Mentha pulegium* or *Hedeoma pulegioides*. The oil from the latter is entirely different from the one derived from Mentha; I am working on it for some time and intend to publish an article about it in a few months. I have been unable to obtain an authentic sample of the oil commercially.

You will probably have heard that we are enjoying the company of ababy for the last two months. The little one is doing fine inspite of the great heat and drought, also my wife is well, but suffers from heat prickles at hight which prevent here from sleeping. What can be done about this? This matter begins to have a bad affect on the milk. By the way, it is odd xxx how she became acclimati zed without any illness. An intermittent fever is making its round everywhere, but it seems I had my last fever in Illinois and never had an attack again.

Enclosed are some conferederate postage stamps for your European friends. Large bills are hard to find, but I shall try my best.

Hearty greetings to Dora from my wife and me.

Your cousin

Eug. W. Hilgard.

Rec. June 5th
ans. ... 12

Oxford, Miss. June 2, 1887.

Lieber [illegible]!

Ich beantworte deinen Brief in der Reihenfolge. Ich habe keine der hiesigen [illegible] blühend an hand, zur Vermehrung des [illegible]; will mich jetzt darauf achten. Ich erinnere mich [illegible] [illegible] und auch der [illegible] die ich am Morgen auf meinem Spaziergange fand, aber nicht weiter untersuchte, [illegible] der Stand ziemlich gerade und Blüten blau, [illegible] [illegible] [illegible] Jackson schon die Cupuliferen, und weiter nördlich Q. nutis blühen im Mai. Nämlich Jackson ist ziemlich [illegible] 16–17 [illegible] [illegible] [illegible] [illegible], [illegible] am 10ten Mai blühten hier die [illegible]. Aber warum [illegible] du auch Q. nutis? – nämlich ohne [illegible] auch [illegible], [illegible] [illegible] [illegible], [illegible] ich zu mir selbst an jenem Morgen:

für Pinus mitis; [illegible] P. australis – [illegible]

[illegible] im April [illegible]

[illegible] 2 [illegible]

[illegible] Jackson verbreitet; [illegible]

[illegible]

Quoad Geographische Pinusarten in Missouri wäre also Folgendes zu sagen: P. mitis [illegible] mit [illegible] südlich mit P. australis [illegible] 80 Meilen [illegible]

[illegible] P. austr. [illegible] P. taeda [illegible] 80 Meilen [illegible] bottom [illegible]

[illegible] SW – NE [illegible]

[illegible] P. [illegible] e. g. Magnolia macrophylla, Illicium floridanum, P. taeda,

P. glabra Willd.? [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] P. [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] S. Cr. [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] Styrax, u. Azaleen
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible].

[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] P.
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible].

[illegible] [illegible] [illegible] [illegible] Vitis
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

[illegible] Pflanzen, [illegible]
[illegible].

[illegible] 11 [illegible]
[illegible]
[illegible]
[illegible] Grüße [illegible]!

[illegible]

[illegible]

Dr. Geo. Engelmann.

Rec^d June 19
Ans Oct 28.

Oxford, June 16, 1867

Lieber Doctor!

[illegible] P. glabra [illegible]

[illegible] Abies [illegible] 12 [illegible]

[illegible]

wie P. Strobus, aber ohne die Zähig-
keit des Letzteren. Nur für rails wird es
gebraucht, und darauf auch der Name [illegible]
Hab. [illegible] bottoms, [illegible]
[illegible] — [illegible]
in Miss. [illegible]
[illegible] Illicium floridanum. [illegible]
[illegible]
[illegible] Madison Co. Miss., [illegible]
[illegible] "Central prairie region"
(Miss. Rep. p. 37[illegible]), [illegible] "Pine"
[illegible] "[illegible]" [illegible],
[illegible] "Long leaf Pine Region" [illegible]
[illegible] bottoms [illegible]
[illegible] bottoms, [illegible]
häufigste Vorkommen [illegible] p. 366 Miss. Rep.
[illegible] 2d bottom [illegible] Pascagoula
bluffs [illegible]
[illegible]
[illegible]
[illegible]

[illegible] Standort [illegible] Marsilea [illegible]
[illegible] [illegible] erklären können, [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] östlichste Linie [illegible]
in Alleg. [illegible] [illegible] parallel [illegible] d. h.
dem Golfstrome; die Flora [illegible] [illegible] nicht
dem [illegible] [illegible] [illegible] einfach,
das Zurückdrängen der südl. Flora längs
dem Mississippi direct zu erklären. Es ist
höchst auffallend, wie innerhalb 40 – 80
Meilen vom Flusse [illegible] [illegible]
[illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] bleibt
sog. südlichen Flora verdrängt wird; [illegible]
[illegible] [illegible] Zuflüsse des Golfes, den
Amite und selbst Pearl River, erreicht.
Z. B. Verbena bracteosa ist hier ein gewöhnliches Un-
kraut, im Amitegebiet unbekannt; hier wachsen Cassia
pectinata chamaecrista, M[illegible]; [illegible] tenuifolia.
a. occidentalis gar nicht, bis hier, wenn man den
Pearl R. [illegible] Zuflüsse des Amitegebiets nicht, in
Mengen [illegible], unter Verb. Aubletia, [illegible]

nur im Garten zu finden ist. Auch die Compositae
Labiatae haben vielfache Beispiele der Art, auch
Sassafras, Tilia und Platanus, die von Fon-
taine & Pearl ganz [illegible]. Ein bemerkbar[illegible]
[illegible] die Verbreitung [illegible] nach
[illegible]
[illegible]
[illegible].

[illegible]
[illegible]. Sie wandten aber doch nicht das übrige,
oder auch selbst, so spät für die ganze Aus-
stellung unserer Spezimen haben? [illegible]
dort sehen könnte!

Herzliche Grüße.

[illegible] Vetter

Eug. W. Hilgard.

Hilgard, Eug. W.
1867, June 16th
Oxford, Miss.

TRANSLATION

Oxford, June 16th 1867.

Dear Doctor,

Of course, P. glabra was among the plants which you and Theodor previously determined; what you held for P. mitis and put the specimens together so that I myself am now unable to distinguish between them--proof enough how closely related these species are. But growth and habitat are quite different. Older trees, looked at from a distance, could be held for Abies canada; knotty branches and round shapes and usually of a height of 12 feet and rare and only to be found far apart; often it is easy to climb these trees. The bark is similar to the older Acer sacch. , often to Querc. coccinea; ..."bottom shute pine" is only applied to the wood which as the people say is "all sap", i. e. like P. strobus, but not as hardy as the latter. It is only used for rails and even then don't last very long. Habitat exclusively in the bottoms and in sandy soil.--the distribution in Mississippi is about the same as the Illicum floridanum. The most northern part where I found this tree is north of Madison Co., Miss. From there on it slips over "my central prairie region" (Miss. Rept. p. 330) ... The localities where it is to be found in great numbers are given on p. 366 of the Miss. Report. In the second bottom of the Pascagoula I never saw the flowers and don't want to spend any time on that at the moment, but intend to try to see them next spring. I have not been able to find either Isoetes or Marsilea in Miss., but I have been only in May and June at the coast where they would be expected to be... It is easy to explain the fact that the southern flora grows back to the Mississippi River, just as 40080 miles from the river the Illinois flora is to be found. Then it is being replaced by the so-called "southern flora" as soon as one reaches the tributaries to the gulf and the .... bigby and the Pearl River itself. For instance, Verbena bracteosa is here a common weed, unknown at the ..... bigby; here Cassia nictitans, Chamaecrista, marylandica; obstusifolia & occidentalis don't grow at all until they are found in great numbers if one reaches the Pearl River or the .... bigby, also Verbena Autbletia which is only found in Gardens. There are also many species of Compositae and Labiatae, also Sassafras, Tilia and Plantanus which are back of the Pearl River and the .....bigby. The most peculiar thing, however, is the distribution of Magn. macrophylla which follows from Vicksburg along the course of the Pearl River.

Thanks for your good wishes for the baby. You probably won't fail to take yours and yourself across the Ocean in time for the Paris exhibition? If one could only go!

Greetings to Dora, your faithful cousin,

Eug. W. Hilgard.

Rec^d Nov 27
Ans Dec 23

Grapes and [illegible]

Vicksburg, Nov. 22, 1867

Lieber Doctor!

Ich bin hier in Erwartung eines Bootes, das mich flussabwärts nach den Gefilden New Orleans führen soll, deren geologische Struktur zu erforschen mir obliegt. Ehe ich Oxford verließ, sendete ich pr. Express in einer Kiste die längst versprochenen Pflanzen, die vielleicht schon vor diesen Zeilen angekommen sein werden. Ich wollte dieselben ursprünglich vorher noch ein-mal durchgehen u. Bemerkungen hinzufügen, hatte dazu aber keine Zeit – du findest sie daher in ziemlicher Unordnung. Es sind nicht nur Rebenexemplare, sondern hauptsächlich die Ausbeute meiner Expedition zur Küste, April, Mai u. Juni 1859 – Ich schicke Alles, und du bezeichnest die eingelegten, Duplikate zu nehmen wie das vorige Mal, als Du u. Shorter einen

ähnlichen Fall wir auch hatten. Manches mag
keinen Zettel haben – solches ist allerdings [illegible] passiert
falls von Lindheimer'schen Pflanzen. Das Übrige
erklärt sich wohl selbst.
Quoad Reben. Du fandest einen kräftigen
Fruchtstiel bei einer Traube v. Vitis "cordifolia?"
Eine ähnliche Quantität hatte ich auch v. V. aesti-
valis, aber es wurde alle Vögel, sie wären
als ich sie aufsuchte, alle bis zum 8ten Mal
aufgefressen. Aber V. aest. ist wohl über-
[illegible] Verschiedenheit als über "cordifolia-
riparia". Bemerke daß die Kernen
der Beeren zwar meist dieselben sind, aber
auch oft, bei einzelnen Büschen, aber so fest
gedrückt als die regelmäßigen bei V. aest. der
Fall ist. Beide Typen sind in dem Fruchtkorb;
[illegible] wobei ich bemerke, daß bestimmt dieselbe
individuelle Rebe sowohl solche als dieselben
Kernen trug. Das Exp. v. Jackson ist
ohne Frucht – die individuelle Rebe v. der
es stammt, ist unfruchtbar, wie ich später
fand; auch konnte ich nie entsprechende

Fruchtg. in Cotton-fäden — alle scheinen
unfruchtbar, da die folgenden Regen beschatten.
Leider ist in der Nähe v. Oxford sehr wenig
Abwechselung im Terrain, daher verhältnißmäßig
wenig Variation in den Reben, u. denen
in den Cp. alle dort gefundenen Lygen verwandt
sind.
Ich will auch die Lemnae aufzusuchen; hoffe
auch Jemand aufzutreiben, der blühende
Pinus fremula.
Was mein botanisches Colleg betrifft, so
hab ich es nolens volens abbrechen müssen
honoris academiae causa. Ich lese nicht
gern Dinge, in denen ich nicht ganz fest auf
eigenen Füßen stehe.
Viel botanische Resultate sind v. meiner
jetzigen Expedition nicht zu erwarten — nur
pflanzengeographische.
Jessie und Betty sind wohl und würden
grüßen lassen, wenn sie zur Hand wären.
Gegen Weihnachten bin ich zurück u. hoffe
dann v. Dir zu hören. Grüße Deine Freunde

läßt, wie deinen Stammhalter. Sage mir
doch in deinem nächsten Briefe, wo deine
Schwestern sind und was sie machen, und grüße
sie von mir!

Dein treuer Vetter

Eug. W. Hilgard.

Hilgard, Eug. W.
1867, November 22nd
Vicksburg, Miss.

TRANSLATION

Vicksburg, November 22nd, 1867.

Dear Doctor,

I am waiting here for a boat to take me downriver to the fields of New Iberia in order to study the dendrological structures there. Before leaving Onxford, I sent by express mail the long promised plants which may have arrived at the time this letter does. I intended to look them over again myself and make some remarks but did not have the time--therefore you will find them in a kind of mess. There are not only Vitis species, but also the exploits of my expedition to the coast during April, May and June 1859--I am sending everything, and you are invited to take duplicates of everything you want just as last time when you and Theodor received a similar package. Many things may not have labels, if so, they are from southwest Mississippi (May and June). The rest is self-explanatory.

Now to the vines. You will find a large package of dried fruits of Vitis "cordifolia?". I had planned to enclose a similar quantity of V. Aestivalis, but whether there were mice or negroes, they were eaten up for the third time when I was ready to pack them. There is less uncertainty concerning "cordifolia and riparia". Please observe that the branches of the latter are mostly diffuse, but also often, in smaller bushes, just as tight as is regularly the case in V. aest. Both types are among the fruit specimens, in which connection I wish to remark that certainly, the same individual vine was bearing branches both ramose as well as diffuse. The specimen from Jackson is without fruit--this individual vine is not fertile as I found out later, also I was never able to find a similar specimen in the bottoms--all seemed to be unreproductive which had a the felty ribs. Unfortunately, the vicinity of Oxford is rather monotonous and therefore very little varieties of Vitis can be found, whatever I found I enclosed in my package.

I shall look out for Lemnae; I also shall try to find somebody who can collect flowers of this Pinus.

I have to take over my botanical lectures nolens volens honoris academiae causa. I don't like to teach things which I don't know in depth.

My wife and baby are well and would send greetings if they were here. I hope to be home by Christmas. Give my greetings to Dora as well as to your son and heir. Tell me in your next letter where your sisters are and what they are doing and give them my greetings.

Your faithful cousin
Eug. W. Hilgard.

Rec^d Jan 2^d
Ans Jan 11

Oxford Miss., Dec. 29, 1867

Lieber Doctor!

Hier folgen ein paar Lemnen, die ich zu Tausenden die Oberfläche des Bayou Cypres Mort bedeckend fand. Erst glaubte ich es sei unter den Lemnen eine Kartoffelkrankheit eingetroffen – die olivenfarbige Art sieht zuweilen fast zinnoberroth aus, ich konnte diese Erscheinungen aber an den abgeschnittenen Exemplaren nicht wiederfinden und zu sehen wie so.

Eben erhielt ich Deinen Brief vom 23ten; erwiedere vor Allem Deine Weihnachts- u. Neujahrsgrüsse, und melde meine glückliche Rückkehr, trotz Cholera u. Yellow Jack. Du meintest einmal zu beobachten, daß auch unter den Eichen und Gräsern. Ich konnte aber gar nichts in der Lein thun, so kann meine vorläufigen quae erant demonstranda zu

Wege bringen. Heute früh hat ich gegen
200 geologische Specimina eingepackt, die
denen auch schwerlich viel zu erhalten ist.
Was nicht wenn ich zu Wege bringen werde,
denn ich habe ungefähr 3 Professoren auch
mir. Remensch auch einiger Zeit einen
gestohlenen Artikel zu den Proceedings liefern.
Also die Vitis riparia ist schon publicirt!
Was sie ich nicht. Ich sollte meine eigene V.
cordifolia müsste eine treffliche amerikanische
[illegible] Traube liefern — schmeckt fast wie
die schweren Traubenbeeren!
Diesen Herbst will ich dir ein bushel
mit [illegible] denen V. aestivalis trocknen — aber
wie soll man es denn mit der V. vulpina
anfangen? Die hält ja ein halbes Jahr und
muss aber die Trauben wird — man müsste sie
gewiss bei künstlicher Hitze, über 30–60°
dörren. [illegible] Die macht einen
herrlichen brandy.
Es freut mich daß Du die Schlangen unter-
sucht habe. Aber sie in einem [illegible]

Artikel schicken! Erstens giebt es hier keinen Flaggenartikel; zweitens würde sie die Express verweigert haben. Ich will Dir's abschicken wie Du wünschst, wenn sie kommen.

Grüße Dora u. Georgie von uns!

Dein tr. Vater

Eugen.

55.4
32

23.4
93.6 / $\frac{9}{10.5}$

Hilgard, Eugene
1867, December 29th
Oxford, Miss.

TRANSLATION

Oxford, Miss., December 29th, 1867.

Dear Doctor,

Here you have a few Lemnae which I found covering the soil of the Bayou Cyprès Mort in Louisiana. First, I believed that a potato sickness had broken out among the Lemnae--the olive colored species looks almost cinnamon-red. However, I could not get closer to these specimens in the horrible mud to see why.

I just received your letter of the 28th, I also send you my best greetings for Christmas and the New Year and hope to return soon inspite of the Cholera and Yellow Jack. Down there is much of interest to a botanist, especially the oaks and grasses. However, I can't do anything "in that line", yes, hardly get through with my geology que erat demonstranda. This morning I unpacked about 200 geological specimens on which I have still a lot of work to do. Don't know when I can do it since I hold apparently three professorships. I may be able to deliver a hot article for the proceedings after some time.

So the Vitis riparia has already been cultivated! I should think that our V. cordifolia should bring excellent grapes--it almost tastes like black currants.

This fall I intend to dry for you a bushel of V. aestivalis--but what should I do with V. vulpina? It becomes rotten half a dozen times before it gets dry and one should try it at a temperature of 50-60°. Shall try it. It makes a superb brandy.

I am glad you found the plants interesting. But to send them in cardboard cover? First of all, you can't get cardboard here. I shall wait and see how you are doing it when they arrive.

Greetings to Dora and Georgy from us.

Your faithful cousin
Eugen

Rec^d Jan 31st
Ans Jann [illegible]

UNIVERSITY OF CALIFORNIA

OAKLAND, JAN. 22, 1876.

DR. GEO. ENGELMANN

DEAR DOCTOR,

I HAD THEODORES AND MY COLLECTION SENT ON TO ME SOME TIME AGO & I HAVE BEEN LOOKING IT OVER AS FAST AS MY EYES WOULD LET ME, AND FIND TO MY SORROW SOME PRETTY EXTENSIVE GAPS IN IT. RANUNCULACEAE AND FUMARIACEAE ALMOST UNREPRESENTED SAVE BY MY MISSISSIPPI COLLECTIONS, ANDVERNONIACEAE, TOGETHER WITH THE ENTIRE THISTLE RELATIONSHIP, ALLMISSING.--DID THEODORE LEAVE ANY OF OUR PLANTS IN YOUR HANDS FOR DETERMINATION-- OR CAN YOU SUGGEST ANY ONE ELSE WHO MIGHT HAVE THEM?--MUCH OF THE ABSENT MATERIAL:FROM SPAIN & PORTUGAL: IS ALMOST IRREPLACEABLE IF LOST.MUCH OF THE WESTERN FLORA, TOO, IS DEFICIENT.

DO YOU WANT ANY CALIFORNIAN PLANTS?--IF SO , TELL ME WHAT, AND I WILL TRY TO EXCHANGE THEM FOR SOME OF MY WANTS.

WE ARE WELL, ALL BUT MY EYES, AND LIKE THE COUNTRYAND THE SITUATION.THIS MACHINE ENABLES ME TO WRITE!-GREETINGS TO DORA.

YOURS EVER

Eug. W. Hilgard.

Rec^d May 22^d
Ans June 6

UNIV. OF CAL., MAY 13, 1876.

E. Hilgard

DEAR DOCTOR,

YOUR TWO LETTERS DULY REC'D. FIRST OF ALL LET ME TELL YOU THAT FEW THINGS CAN INTEREST ME MORE THAN BOTANICAL QUESTIONS YOU KNOW I USED TO PLAY BOTANY INSTEAD OF MARBLES, WHEN A BOY; AND I MIGHT SAY LIKE ALEXANDER, THAT IF I HADN'T CHANCED TO BECOME A CHEMIST I WOULD BE A BOTANIST. THEN, WHILE MY BROTHER THEO LIVED, WE WERE CONSTANTLY CORRESPONDING ON BOTANICAL SUBJECTS; AND I HAVE MISSED THIS AMONG MANY OTHER THINGS SINCE HIS DEATH, ESPECIALLY AFTER COMING INTO SUCH A NEW AND HIGHLY INTERESTING REGION. SO YOU NEED NEVER BE AFRAID OF ''BORING'' ME ON THAT SUBJECT! --WHAT YOU SAY ABOUT THE CONIFERS IS BOTH NEW AND STRIKING, ESPECIALLY AS COMING FROM SUCH A CONSERVATIVE. IN USING GRAYS TEXT BOOK IN MY COURSE ON ECONOMIC BOTANY, THIS SESSION, I HAVE BEEN A GOOD DEAL IMPRESSED WITH THE CURIOUS MIXTURE OF TENACIOUS HOLDING ON TO OLD NOTIONS, AMID THE WORKING OF THE NEW LEAVEN. I DON'T WONDER THEO USED TO GET SO ''MAD'' ABOUT THE INCONSISTENCIES OF ACCEPTED CLASSIFICATIONS -- E. G. THE HAIRSPLITTING DISTINCTIONS BETWEEN GROUPS AND ORDERS ON THE BASIS OF APETALISM, EPIGYNISM &C., WHEN SUCH ORDERS AS ROSIFLORÆ AND RANUNCULACEAE WERE LEFT INTACT; AND THE DISREGARD OF SIMILARITIES AND DISSIMILARITIES OF GENERAL TYPE, IN FAVOR OF DIAGNOSTIC MARKS THAT IN A DOZEN OTHER CASES HAVE BEEN SET ASIDE BY GENERAL CONSENT. THINK OF HAMAMELIS AND BALSAMIFLUAE BEING PUT INTO ONE POT, AND AILANTHUS AND NEGUNDO MILES APART—WITH ARISTOLOCHIEAE AND NYCTAGINEAE NEXT TO CHENOPODIACEAE! -- ON THE OTHER HAND, THE WIDE DEFINITION GIVEN TO SUCH ORDERS AS HIS PRESENT GERANIACEAE, RUTACEAE, AND SAPINDACEAE, ARGUES A STRONG TENDENCY TOWARD THE ONLY SENSIBLE AND LOGICALLY ATTAINABLE OBJECT OF CLASSIFICATION, VIZ: TO BRING AS MANY FORMS AS ~~MO~~ POSSIBLE UNDER A COMMON POINT OF VIEW. BUT THEN WHY SHOULD SUCH SUBTLE GENERIC DISTINCTIONS BE MAINTAINED AS CYDONIA FROM PYRUS -- WHY, IN GENERAL, SHOULD ANY MORE GENERA BE MADE THAN IS STRICTLY NECESSARY TO MAINTAIN A CONVENIENT SCOPE OF TYPE FOR PRACTICAL PURPOSES? IF ORDERS AND GENERA, UNLIKE MARRIAGES, ARE NOT MADE IN HEAVEN, BUT ON THE CONTRARY ARE MERELY CONVENIENT GROUPS FOR PURPOSES OF STUDY: DO LET US CUT DOWN AND GENERALIZE AS MUCH AS POSSIBLE! I GOT SATURATED WITH THE MAKING OF GRATUITOUS GENERA AND SPECIES IN MY VAIN EFFORTS TO GET SOMETHING INTELLIGINLE OUT OF MY VENERABLE FRIEND CONRAD, WHO ''AUFOCTROYIIRTE'' A NEW CREATION OF FOSSILS FOR EVERY LITTLE STAGE OF THE SOUTHERN TERTIARY, IN TRUE PHILADELPHIA STYLE. WE HAVE HAD ENOUGH OF ''GEDANKENLOSE HEUSAMMLER'' IN ALL DEP'TS OF NATURAL SCIENCE, CHEMISTRY INCLUDED; AND WE OWE ETERNAL GRATITUDE TO DARWIN FOR BREAKING INTO THAT WRETCHED METHOD FOR

DRIVING THE SPIRIT OUT OF THINGS, EVEN IF NO SPECIES EVER DID DEVELOP OUT OF ANOTHER. THEM'S MY SENTIMENTS; AND I AM DELIGHTED TO FIND YOU AND GRAY SO MEASURABLY SOUND ON THE SUBJECT.

WHAT YOU SAY ABOUT THE AFFINITIES OF CONIFERAE RECALS TO MY MIND THE WEGWERFENDEN REMARK IN HOOKER'S EDITION OF LE MAOUT & DECAISNE, THAT THE CONIFERS ''MIGHT BE CONSIDERED AS INTERMEDIATE BETWEEN PHAENOGAMS AND CRYPTOGAMS, IF A FEW EXTERNAL RESEMBLANCES ONLY WERE NOTED...'' NOW IT IS PRECISELY THE DISREGARD OF THE NATURAL PRESUMPTION OFFERED BY SUCH ''EXTERNAL RESEMBLANCES'' -- OF THAT INDEFINABLE THING ''HABIT'' -- IN FAVOR OF STRUCTURAL DIFFERENCES WHOSE VALUE IS SO LARGELY AN ARBITRARY ESTIMATE , AND SO OFTEN POINTEDLY DISREGARDED : E. G. EPIGYNISM, APETALISM, GAMOPETALISM : THAT I OBJECT TO. SOMETIMES HISTORICAL ACCIDENTS EVEN, SEEM TO HAVE INFLUENCED THE MATTER. FOR INSTANCE, IF CASUARINA HAD BEEN A EUROPEAN PLANT, WOULDN'T IT HAVE BEEN CLASSED AT ONCE WITH SALICORNIA? AND IF THEY HAD ONCE BEEN THROWN TOGETHER, ON WHAT WEIGHTY GROUNDS WOULD THEY HAVE BEEN SEPARATED, SO LONG AS PYRUS AND DRYAS, RANUNCULUS AND ACTAEA AND AQUILEGIA REMAINED WITHIN THE SAME ORDERS? -- THERE SEEMS TO ME TO BE SUCH A LACK OF ANY APPROACH TO UNIFORMITY IN THE VALUE OF THE DIAGNOSTIC DISTINCTIONS BETWEEN DIFFERENT ORDERS, THAT I CONSTANTLY FIND MYSELF APOLOGIZING FOR IT TO MY CLASSES; ESPECIALLY WHEN I HAPPEN TO BE UNABLE TO SHOW THE REAL GROUNDS FOR THE ORIGINAL DISTINCTION BY OCULAR DEMONSTRATION OF THE DIFFERENCES OF HABIT. I HAVE BEEN MORE STRUCK WITH THIS FACT OF LATE ON ACCOUNT OF MY USE OF LE MAOUT &C., WHERE A DIAGNOSTIC AND VERY BRIEF DESCRIPTION IS MADE TO PRECEDE THE GENERAL ONE, IN WHICH THE DIFFERENCES OF HABIT ARE GIVEN. IT IS SOMETIMES ABSOLUTELY LUDICROUS TO NOTE THE UTTERLY INSIGNIFICANT, AND IN TWENTY OTHER CASES UTTERLY DISREGARDED, STRUCTURAL DIFFERENCES ON WHICH THE DISCRIMINATION CLAIMS TO BE BASED.

OF COURSE, EVERYBODY ADMITS THAT WHEN IT COMES TO ATTEMPTING A SERIAL ARRANGEMENT, WHETHER OF PLANTS, ANIMALS OR CHEMICAL ELEMENTS, THE MOST THAT CAN BE DONE IS TO SATISFY THE MOST PROMINENT AND OBVIOUS RESEMBLANCES; AND OPINIONS WILL ALWAYS DIFFER AS TO WHICH ARE TO BE FIRST CONSIDERED. BUT THERE IS A WIDE MARGIN AS YET BETWEEN THESE UNAVOIDABLE IMPERFECTIONS, AND THAT SPIRIT-KILLING METHOD WHICH MAKES OLD KOCH, OF THE ''FLORA DEUTSCHLANDS'', DESCRIBE ACCURATELY THE DIFFERENCES IN THE VENATION OF THE PETALS OF THE VARIOUS VERONICAS, FOR CONVENIENCE : : ! : IN DETERMINATION, WHILE NOT SAYING A WORD EITHER AS TO HABIT OR SIZE -- YOUR PLANT MAY BE TEN FEET, OR FOUR INCHES HIGH, FOR AUGHT HE TELLS YOU ABOUT IT. BECAUSE, SAYS HE, MANY PLANTS VARY GREATLY IN HEIGHT : HE QUOTES ERIGERON CANADENSE :, HENCE IT WOULD BE UNSAFE TO COMMIT ONESELF TO ANY PARTICULAR ONE! NO WONDER GERMAN STUDENTS USED TO CONSIDER BOTANY AS WORSE IN DRYNESS THAN EVEN REICHLIN-MELDEGG'S METAPHYSICS, OR THE GREAT LATIN GRAMMAR.

HAVING NO DETAILED DESCRIPTIONS OF THE CAL. OAKS, I AM REDUCED TO CONJECTURE AS TO NAMES.

NOW ABOUT THE SOUTHERN LIVE OAK. I CAME ACROSS THE SPECIMEN YOU ALLUDE TO THE OTHER DAY, & NOTED YOUR REMARKS. LOOKING AT THE DRIED SP. IT DOES SEEM DIFFERENT FROM THE ORDINARY TYPE OF THE Q. VIRENS. BUT I REMEMBER IT WAS A YOUNG TREE, & I NOTED ITS LARGE LEAVES AT THE TIME, & THOUGHT OF THE HUGE LEAVES OF YOUNG Q. TINCTORIA. BUT IF IT IS NOT Q. VIRENS, THEN MUCH OF THE ''LIVE OAK'' OF THE GULF REGION IS IN THE SAME FIX, FOR IT IS BY NO MEANS AN UNUSUAL TYPE. IT CERTAINLY HAS NOTHING TO DO WITH Q. AQUATICA, OF WHICH Q. LAURIFOLIA MICHX. IS CONSIDERED A VAR. -- ITS HABIT IS ALTOGETHER THAT OF Q. VIRENS, AND Q. AQUAT. IS NOT FOUND WITHIN 50 MILES. MOREOVER, I FIND A SPECIMEN LABELED BY MYSELF ''Q. LAURIFOLIA'', TO WHICH YOU HAVE ADDED ''AQUATICA''. NOW THE TWO ARE NOT IN THE LEAST ALIKE; THE LATTER LOOKING TO ME LIKE A HYBRID BETWEEN AQUATICA AND PHELLOS, BEING POINTED AND ~~SINUATE OR~~ LOBED, WHILE MY ''LIVE OAK'' HAS LEAVES OF THE SHAPE OF Q. CINEREA, THOUGH OF VERY DIFFERENT TEXTURE. EVIDENTLY THE TWO ARE WIDELY DIFFERENT; NOW, WHICH IS Q. LAURIFOLIA MICHX.?

0 1 2 3 4 5 6 7 8 9 10 cm

BY THE SAME TOKEN, YOU PUT TOGETHER MY SPECIMENS OF PINUS MITIS, AND P. GLABRA WALT. : GOOD SPECIES IF THERE ARE ANY :, AND NOW I CANNOT MYSELF SEPARATE THEM AGAIN, IN THE ABSENCE OF THE FRUIT AND HABIT OF TREE. FROM WHAT YOU NOW TELL ME, PROBABLY YOU WOULD NOW BE ABLE TO DO IT, BUT I CAN'T. -- WHEN I SAW THE TWO OAKS PUT UNDER ONE HEAD BY GRAY, IT TOOK MY BREATH AWAY; BUT MY VERY CONSCIENTIOUS BROTHER THEO HAS FURNISHED ME ANOTHER EXAMPLE OF WHAT DRIED SPECIMENS WILL DO, AS HE INSISTED THAT Q. FERRUGINEA AND FALCATA PASSED INTO EACH OTHER. WELL, I ADMIT THAT ON LOOKING OVER THE SERIES THAT HE HAS IN OUR COLLECTION, ANY ONE NOT SO LONG FAMILIAR WITH THE TWO TREES IN ALL THEIR PHASES AND UNDER ALL SORTS OF EXTERNAL CONDITIONS, MIGHT COME TO THE SAME CONCLUSION. AS A MATTER OF FACT, NO ONE SOUTH EVER DREAMS OF CONFOUNDING THE TWO; AND THERE ARE NO REAL TRANSITIONS EXCEPT ONLY IN THE FORM OF YOUNG LEAVES, AND EVEN THAT DISAPPEARS WHEN THE FALCTA PASSES BEYOND THE AGE OF , SAY 10 TO 15 YEARS. BETWEEN THE MATURE LEAVES OF YOUNG SHOOTS OF THE TWO, THE DIFFERENCE OF FORM AND TEXTURE IS QUITE AS GREAT AS BTWEEN THE LEAVES OF OLD TREES. BUT ASIDE FROM THAT, THE DIFFERENCES OF HABIT, WOOD &C SEPARATE THEM AS WIDELY AS ANY OTHER SPECIES.

YOU SAY IN YOUR LAST LETTER THAT YOU WOULD NOT EXPECT TO FIND THE SHRUBBY AND THE ARBORESCENT VARIETIES IN THE SAME LOCALITY. NOW THIS IS TRUE OF Q. AGR. IF YOU RESTRICT THE IDEA OF LOCALITY TO A VERY SMALL SPACE; BUT YOU CAN FIND THE TWO WITHIN A HUNDRED YARDS OF EACH OTHER, ALL THE DIFFERENCE BEING, PERHAPS, AN INTERVEN NG HILLOCK, THAT PROTECTS THE LARGE TRE E FROM THE WIND. IT DOES NOT HOLD GOOD AT ALL OF Q. OBTUSI-LOBA, THE ''POST OAK WITH RUNNERS'' OF THE GULF STATES. THE SHRUBBY OAK THERE FORMS A LOW THICKET, IN WHICH THE LARGE TREES STAND 20 OR 30 FEET APART. AND WHEN THE LARGE TREE HAPPENS TO DIE, SOME OTHER INDIVI-DUAL SOON ASSUMES ITE ROLE, THE REST REMAINING DWARF AS BEFORE. PRECISE-LY THE SAME THING IS TRUE OF THE MAGNOLIA GLAUCA. YOU WILL SOMETIMES FIND A SOLITARY FLOWER TERMINATING A NUMBER OF DWARFS FROM SIX TO EIGHTEEN INCHES HIGH, WHILE IN THE MIDDLE STANDS A GOOD-SIZED TREE OF NORMAL FORM & HABIT. NAY, SOMETIMES A SINGLE FLOWER APPEARS TO COME RIGHT OUT OF THE GROUND, STEMLESS. THIS OCCURS ONLY ON A CERTAIN KIND OF SOIL, JUST AS IS THE CASE WITH THE POST OAK.

SALVE!

YOURS FAITHFULLY

Eug. W. Hilgard

Oakland May 28 '76

Rec June 5th 1876
Ans — 6 —

Oak scrub with larger trees among them

Rec^d June 26th
ans^d same day & 28th

UNIVERSITY OF CALIFORNIA,
OAKLAND, JUNE 15, 1876.

DEAR DOCTOR!

YOUR INTERESTING LETTER INCLOSING THAT ANOMALOUS CHERRY CAME DULY. EVER SINCE RECEIVING IT, THE Q. WISLIZENI QUESTION HAS BEEN ''WORMING'' ME, AND I HAVE LOOKED AT EVERY OAK THAT CAME IN MY WAY, I. E. AT A FEW HUNDRED, TRYING THAT MARK OF YOURS ABOUT THE CUPPED LEAVES. THERE ARE ''LOTS'' WITH LEAVES CUPPED AND LEAVES FLAT, LEAVES ENTIRE AND LEAVES AQUIFOLIOUS; BUT THE TROUBLE IS THAT ON ANY MODERATELY SIZED TREE, YOU CAN ALWAYS FIND ALL SORTS, ON ONE AND THE SAME TRUNK. EVRY NOW & THEN, IN MY PERAMBULATIONS, AN INTERNAL CONSCIOUSNESS WHISPERED ''CATARPILLARS!''-+HUNTED IN VAIN FOR A TREE I REMEMBERED TO HAVE SEEN TEEMING WITH LAST YEARS FRUIT, UNTIL THIS EVENING. AND I THINK I MAY NOW DEFINE Q. WISLIZENI AS BEING SIMPLY A ''CATARPILLARED'' Q. AGRIFOLIA. THE SPECIMENS I MAIL WITH THIS, AND WHICH ARE FROM ONE AND THE SAME TREE, WILL, I THINK, CARRY CONVICTION WITH THEM. YOU WILL SEE ON ONE AND THE SAME TWIG ACORNS OF LAST YEAR AND ACORNS OF THIS YEAR, BOTH EVEIDENTLY DESTINED TO RIPEN THIS YEAR, AND WITHIN A FEW WEEKS OF EACH OTHER. THIS TREE NOURISHED TWO GENERATIONS OF CATARPILLARS LAST YEAR, AND WAS PUTTING OUT ITS THIRD CROP OF LEAVES WHEN THE RAINS CAME, IN NOVEMBER LAST. DO YOU WONDER THAT IT HAD NOT THE STRENGTH TO RIPEN ACORNS? -- BUT THE FERTILIZED OVARIES REMAINED LATENT; THIS YEAR, THE CATARPILLARWAS VERY MILD HERE, THOUGH VERY SEVERE ACROSS THE MOUNTAINS, I. E. ON SUISUN BAY. OUR TREES BLOSSOMED VERY ABUNDANTLY, THOSE THAT WERE BADLY EATEN LAST YEAR SEEMINGLY MOST SO, BUT FROM TWO TO THREE WEEKS LATER; VIDE THE SPECIMENS SENT YOU BEFORE. WHILE THEY WERE IN FULL BLOOM, A SLIGHT ATTACK WAS MADE BY THE CATARPLLLAR; AND THIS CIRCUMSTANCE ENABLES ME AT ONCE TO IDENTIFY THE HABIT OFTHE CRITICAL TREE IN QUESTION, WITH THAT CAUSED BY THE SAME CAUSE THIS YEAR. YOU NOTICE THAT THE LAST YEARS ACORNS ARE EXCESSIVELY CROWDED, MUCH MORE SO THAN THOSE OF THIS YEAR ON THE SAME TWIG. NOW THAT IS PRECISELY WHAT I FIND TO BE THE CASE IN THE TREE THAT HAD THE SLIGHT ATTACK THIS YEAR. IN THE BRANCHES THAT HAD BEEN HEADED IN BY THE INSECT, YOU SEE THE SAME CROWDED HABIT, WHILE IN OTHER TWIGS FROM THE SAME TREE, THE ACORNS ARE SCATTERED AS USUAL. VIDE BUNCH NO. 2. IT IS ALSO VERY NOTICEABLE HOW SMALL, FEW AND WEAK ARE THE ACORNSOF '76 ON THE TWIGS WHERE THOSE OF '75 ARE ABUNDANT. I WAS STRUCK WITH THE SAME THING WHEN OBSERVING THE SHRUBBY FORM OF WHICH I SENT YOU A SPECIMEN, AND WHOSE '76FRUIT YOU EVIDENTLY THINK WILL NOT RIPEN THE SAME YEAR. I WILL SEE ABOUT THAT IN DUE TIME; BUT I DISTINCT-

LY REMEMBER SEEING ON THE MAJORITY OF THE SHRUBBY FORM, '76 FRUIT MUCH LARGER THAN THAT ON THE FEW BUSHES THAT HAD ON THEM ACORNS OF '75. I HAD TO HUNT FOR SOME TIME BEFORE I FOUND THEM AT ALL.

YOU NOW READILY SEE HOW ANY ONE COLLECTING SPECIMENS ONLY EN PASSANT, AND KNOWING NOTHING HISTORICALLY ABOUT THE PRAEMISSA ET INTERJECTA, WOULD BONA FIDE SEND YOU ONLY SPECIMENS OF ONE KIND OR THE OTHER, AND THUS LEAD YOU TO INFER THAT YOU HAD TO DO WITH TWO WIDELY DIFFERENT OAKS. YOU ARE CLEARLY RIGHT IN COUNTING Q. AGRIFOLIA A BLACK OAK DES-

~~PITE ITS ANNUAL FRUIT, SINCE IT TAKES SO LITTLE DISTURBANCE TO MAKE IT BIENNIAL IT NOW APPEARS TO ME THAT WHEREVER THE GROWING SEASON IS MATERIALLY SHORTER THAN IT IS HERE, IT MUST AS A RULE RIPEN ITS FRUIT THE SECOND YEAR~~

:HERE THE MACHINE HAS PLAYED ME A TRICK!:

PITE ITS ANNUAL FRUIT, SINCE IT TAKES SO LITTLE DISTURBANCE TO MAKE IT BIENNIAL. IT SEEMS TO ME THAT WHEREVER THE GROWING SEASON IS MATERIALLY SHORTER THAN IT IS HERE, IT MUST AS A RULE RIPEN ITS FRUIT THE SECOND YEAR. THUS ON THE MOUNTAINS, AND ON EXPOSED PLACES ON THE SEASHORE. THAT ALSO I WILL INVESTIGATE. IT IS VERY CURIOUS TO OBSERVE THE EFFECT OF OUR ROUGH AND PERSISTENT WESTERLY WINDS ON THE IMMEDIATE COAST, ON EVN SUCH HARDY TREES AS THE AESCULUS CALIFORNICA, WHICH GROWS HIGH UP ON THE SIERRA NEVADA. ON THE SHORE IT IS REDUCED TO LOW BUSHES, STUDDED WITH DEAD SHOOTS THAT PRESUMED TO ASCEND TOO FAR BEYOND THE GENERAL LEVEL, AND THE WHOLE MASS OF VEGETATION TRIMMED OFF TO A SLANT OF 20 TO 30 DEGREES. THE OAK DOES NOT DESCEND SO NEAR THE SHORE, BUT EVEN INLAND SHOWS VERY COMMONLY A SIMILAR TRIM. YOU CAN VERY EASILY IMAGINE THAT UNDER SUCH CIRCUMSTANCES, IT WILL OFTEN BE RETARDED IN ITS GROWTH AS BY THE CATARPILLAR, AND BECOME BIENNIAL.

<u>LATER</u>. IN HUNTING OVER THE OAKS IN OUR CAMPUS, I HAVE COMEACROSS SOME ADDITIONAL TESTIMONY. IT MUST BE PRESUMED THAT A TREE MAY SOMETIMES MISCALCULATE THE TIME, AND FALL SHORT OF ACTUAL RIPENING OF ITS FRUIT, WHICH IN ITS TENDER STATE WILL THEN BE WINTER-KILLED. I HAVE FOUND SEVERAL TREES IN THAT FIX -- FULL OF DEAD UNRIPE ACORNS OF LAST YEAR, INTENDED TO BE RIPENED ON THE ANNUAL PLAN, BUT FALING THEREIN.

THE TWO BATCHES IN THE PACKAGE I SEND, ARE <u>EACH</u> FROM <u>ONE TREE</u>; ONE SHOWING THE BIENNIAL FRUIT, THE RESULT OF A SEVERE ATTACK OF LAST YEAR; ALSO A TWIG SHOWING THE CONDITION OF THIS YEARS ANNUAL FRUIT. THE SMALLER BUNCH SHOWS THE RESULT OF A GENTLE CATARPILLARING DURING BLOOM, IN TB THE CLUSTERING OF THE ACORNS~~; ALSO A NON-CATARPILLARED TWIG~~ OFF THE SAME TREE. IN ~~THIS CASE~~, BOTH ALIKE WILL RIPEN THIS YEAR, BUT WILL LOOK VERY DIFFERENT WHEN THEY DO. I WILL SEND YOU SPECIMENS OF THE LATER PHASES.

I INCLOSE A SPRIG OF A SCRUB OAK BROUGHT BY A FRIEND FROM MONTE DIABLO, WHICH CERTAINLY SEEMS TO DESERVE THE NAME OF ''CHRYSOLEPIS'', WHETHER IT BE THAT SPECIES OR NOT. I AM GOING THERE MYSELF BEFORE LONG, AND WILL BRING A LOT OF BETTER SPECIMENS. OTTO, I THINK, IS STILL DEALING WITH A SCRUBBY ''AGRIFOLIA''. MORE ANON.

YOURS FAITHFULLY

Eug. W. Hilgard

Rec'd July 17/76
Ans Dec 11

UNIVERSITY OF CAL., JULY 8, 1876.

YOUR POSTAL REC,D. ON EXAMINATION I FIND THAT THE TREE IS FAST LOSING MOST OF THE PSEUDO-BI-ENNIAL FRUIT, WHICH HAS, HOWEVER, GROWN CONSIDE ABLY SINCE I SENT YOU SPECIMENS, SOME BEING YET GREEN AND GROWING. THE CUP CONTINUING LONGEST.

I DOUBT THAT ANY WILL RIPEN. I GO TO-MORROW TO LOOK AFTER THE SHRUBBY ''WISLIZENI'' TIBI, AND WILL REPORT. KELLOGG BELIEVES IN THAT SPECIES! SAYS LEAF-VENATION &''HABIT''DIFFER MATERIALLY, BUT WILL NOT COMMIT HIMSELF ON THE SHRUBBY SP. SO NAMED BY YOU, REC'D, PAMPHLET + PHOTO. THANKS!

E. W. H.

United States
POSTAL CARD.

WRITE THE ADDRESS ONLY ON THIS SIDE—THE MESSAGE ON THE OTHER

U.S. POSTAGE ONE CENT

To DR. GEORGE ENGELMANN
3003 LOCUST ST.
ST. LOUIS, MO.

Rec June 12th

University of California,

COLLEGE OF AGRICULTURE,

Berkeley, JUNE 6, 1880. , 187

DEAR DOCTOR,

YOUR WELCOME LETTER OF MAY 23 CAME DULY, AND WE WERE REJOICING AT THE PROSPECT OF SHOWING YOU AROUND HERE WHEN LO! - COMES FATE, ROH UND KALT AND TELLS ME I MUST STOP MY WORK RIGHT OFF AND ''GET OUT''. THE FACT IS, I AM UNUSUALLY USED UP THIS END OF THE SESSION, AND WAS REFLECTING ABOUT THE DIRECTION IN WHICH TO MOVE, WHEN ALONG COMES VILLARD, AND WANTS ME TO LOOK UP SOME MATTERS ABOUT COAL AND IRON IN OREGON AND WASH., AND THAT , AS USUAL, ''AS QUICK AS YOU CAN''. WELL, IT JUST SUITS MY CASE, AND SO I AM OFF ON THE 15'TH OF THE MONTH. AS IT HAPPENS, I SHALL BE THERE WHEN YOU COME UP, AND EXPECT TO ACCOMPANY YOU EITHER UP THE COLUMBIA, OR ON PUGET SOUND. MEANTIME, VILLARD TELLS ME TO WRITE TO YOU TO LET HIM KNOW WHEN YOU ARE GOING, AND HE WILL ARRANGE THINGS FOR YOU R COMFORT UP THERE - A THING HE KNOWS PERFECTLY HOW TO DO, AS I CAN TESTIFY. DON'T FAIL TO DO AS HE SAYS, FOR HE MEANS IT!

SO YOU WILL FIND MY WIFE HERE, A DISCONSOLATE GRASS WIDOW,AND I HOPE YOU WILL NOT FAIL TO COME OVER TO SEE HER. LET HER KNOW THE TRAIN ON WHICH YOU COME, AND MY SON EUGENE WILL RECEIVE YOU AT THE DEPOT AND DRIVE YOU UP. THE TRAINS CONNECTING WITH BERKELEY LEAVE THE CITY ON THE HALF HOURS IN THE MORNING :7.30 TO 11.30:, THEN ON THE FULL HOURS FROM I TO 6. FOR MY HOUSE, STOP AT ''DWIGHT WAY ST'N.'' UNDERSTAND THAT THERE IS A SPARE ROOM ALWAYS READY FOR OUR VISITORS, SO THAT YOU CAN COME WHEN YOU LIKE AND STAY OVERNIGHT.. MY ASSISTANT, MR. DWINELLE, OR IN HIS ABSENCE MY GARDENER, MR. KLEE,WILL PILOT YOU AROUND THE GROUNDS &C. BUT I HOPE TO SEE YOU MYSELF WHEN YOU RETURN FROM THE NORTH, AS I EXPECT TO BE HOME THE SECOND WEEK OF JULY. AS FOR COMING OVERLAND FROM OREGON, VILLARD ADVISEDLY WHISTLED WHEN I TOLD HIM OF YOUR INTENTION. ; AND YOU MUST NOT FAIL TO ACCEPT HIS ''EASEMENT'' OF THAT TRIP FOR YOU, FOR IT IS A TREMENDOUS PULL WHEN MADE ON THE STAGE, WHICH HAS KNOCKED UP YOUNGER PEOPLE THAN YOURSELF

SO THEN, AU REVOIR IN THE HOME OF ABIES DOUGLASSII!-WHEN YOU GET TO PORTLAND, YOU WILL KNOW WHERE I AM AT HEADQUARTERS OF THE OREGON RAILWAY & NAVIGATION CO., ESPECIALLY OF MR. PAUL SCHULTZE,NÉ DE SCHULTZENDORFF. DON'T FAIL TO TELEGRAPH TO ME AT ONCE ON ARRIVAL AT PORTLAND.

THAT OF THE DIFFERENCE IN SUCCESS OF VINE GRAFTS IS VERY INTERESTING AND IMPORTANT! WE WILL TRY IT HERE, BEFORE LONG, ON VITIS CALIFORNICA.

YOURS, WITH GREETINGS FROM ALL

E. W. Hilgard

Rec Dec 22

Berkeley, Cal.
Dec 15. '80

Dear Dr Engelmann,

Enclosed you will find a postal card addressed to you which came to Berkeley being addressed to Papa's care. I wish that in your next you will please send it to me if you have no further use for it as it is not easily obtained here and I am quite anxious to get it. We received the stamps and return you many thanks for your kindness. Papa wishes me to say that although he received your letter duly, owing to press of business he has not been able as yet to answer it though he hopes very soon to do so.

Mama and the children, not excepting myself, send best love to you, and

Alice wishes you to know that to-day was hers 8th birthday and that she got a pretty doll that nods. Hoping to hear from you, at an early date I remain,

Yours Affectionately.

Eugene H.

A. – Febr 15
Ans. March 2

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University of California,
COLLEGE OF AGRICULTURE.

Berkeley, FEBR. 6, 1881.

DEAR DOCTOR,

I MAILED TO YOU A FEW DAYS AGO, A PARTIAL EXPLANATION OF MY LONG SILENCE, IN THE SHAPE OF MY ANNUAL REPORT. IT IS BUT FAIR TO SAY THAT THAT REPRESENTS BUT A SMALL PART OF ALL THE IMPEDIMENTA I HAVE HAD ON MY HANDS WITHIN THE LAST TWO MONTHS. THE LEGISLATURE IS IN SESSION, AND OUR RIGHT-HAND BUSINESS MAN IS SICK, AND ON TOP OF ALL, THERE IS A CERTAIN MODICUM OF THE CENSUS WORK THAT MUST BE CURRENTLY DONE. SO I HAVE BEEN KEPT PRETTY WELL IN HARNESS, BUT I AM HAPPY TO SAY THAT THE STRESS HAS BEEN BORNE MUCH BETTER THAN I HAD HOPED. I HAVE REPEATEDLY OF LATE GONE UP TO THE MOUNTAINS WITHOUT ANY FATIGUE FROM A THREE HOURS STEADY WALK, WHICH IS MORE THAN I HAVE BEEN ABLE TO DO FOR SOME TIME PAST. IT SEEMS, AFTER ALL, THAT LAST SUMMERS TRAVEL HAS DONE ME GOOD AS WELL AS YOU; AND UPON PROOF THEREOF I HAVE ACCEPTED VILLARD'S PROPOSITION TO DO A LITTLE MORE OF THE SAME SORT NEXT SUMMER.—I WISH YOU WOULD DO THE SAME!

ROSA HAS WRITTEN ME ABOUT THE SOMEWHAT FEROCIOUS WINTER YOU HAVE BEEN HAVING BEYOND THE MOUNTAINS. HERE WE HAVE BEEN HAVING A SPRING TEMPERATURE EVER SINCE THE FIRST FREEZES, AND THE HONEYSUCKLES AND FUCHSIAS HAVE BEEN BLOOMING UNREMITTINGLY. THAT WE HAVE HAD WATER ENOUGH AND TO SPARE, YOU ARE DOUBTLESS AWARE. BUT IT HAS NOT HURT ME, I HAVE PASSED THE WINTER WITHOUT ONE COLD WORTH MENTIONING. IT IS TRUE THAT, AS YOU SUGGEST, THE TELEPHONE HAS KEPT ME FROM TAKING MANY A DAMP AND DANGEROUS WALK TO THE UNIVERSITY. IT IS INDEED A GREAT COMFORT! - I STILL HAVE MORE OR LESS OF MY OLD FIGHT ABOUT TIMES AND SEASONS WITH MY ABDOMINAL ORGANS, BUT THEY HAVE BECOME MORE MANAGEABLE AND LESS PAINFUL, AND I FIND THAT AN OCCASIONAL QUININE PILL HELPS TO STRAIGHTEN THEM OUT. I AGAIN EAT FRUIT AND VEGETABLES IN MODERATION, WITHOUT BAD EFFECTS. I MUST CONGRATULATE MYSELF THE MORE UPON THIS STATE OF THINGS, AS SEVERE RHEUMATIC ATTACKS HAVE BEEN VERY COMMON AND SERIOUS. MY EYES HAVE PARTICIPATED MORE OR LESS IN THE GENERAL WELL-BEING, DESPITE THE HEAVY WORK PUT UPON THEM. MY WIFE, ALSO, HAS ON THE WHOLE KEPT UNUSUALLY WELL; ONLY ALICE CAUGHT A COLD IN THE RAIN— NONE OF US HAVE CAUGHT THE SMALL POX!

THE LATTER , BY THE WAY, SEEM TO BE ON THEIR TRAVELS ALL OVER THE COUNTRY. THE CHINESE MUST GO!

I HAVE ACTUALLY NOT SEEN THE SECOND VOL. OF THE CALIFORNIA BOTANY YET! - HAVE NOT BEEN IN THE CITY TO DO MORE THAN A FEW HASTY ERRANDS SINCE YOU LEFT. EVEN CHRISTMAS DID NOT TAKE US THERE - APART FROM THE FOX, THE WEATHER WAS UNPROPITIOUS. BUT FOR ALL THAT, THE CHILDREN WERE THE RECIPIENTS OF THE LATEST STYLES OF LOCOMOTION ARRANGEMENTS: EUGENE GOT A BICYCLE, WHICH HE LEARNED TO BESTRIDE WITHIN A WEEK, AND THE GIRLS HAVE ''FEMALE'' VELOCIPEDE TO CORRESPOND. THE MUD HAS NOT ALLOWED THEM TO ENJOY IT MUCH AS YET, HOWEVER.

WHEN YOU COME NEXT TIME, DON'T FAIL TO RECOGNIZE THE HOUSE BECAUSE IT HAS HAD A NEW CRESTING PUT ON. IT IS NOW IN EXACT ACCORD WITH THE PICTURE THAT ROSA HAS OF IT. WE WILL ALSO GIVE YOU THE CHOICE OF TWO ROOMS UP STAIRS, AS THE ''UNFINISHED PART'' IS TO BE FINISHED IN SPRING. THAT, YOU SEE, COMES OF HAVING GOTTEN RID OF THAT MORTGAGE!

REMEMBER ME KINDLY TO GEORGE AND WIFE, AND BE SURE TO KEEP THAT SAME ''RIGHT SIDE UP'' FOR YOUR NEXT TRIP OVER THIS WAY. MY WIFE AND THE CHILDREN SEND BEST GREETINGS, AND THANKS FOR THE STAMPS - ALICE, SO SOON AS SHE HEARD I WAS WRITING TO YOU, SET ABOUT SPEAKING FOR HERSELF!

YOURS FAITHFULLY

Eug. W. Hilgard

Rec March 26
Ans May 20

University of California,
COLLEGE OF AGRICULTURE.

Berkeley, MARCH 20, 1881.

DEAR DOCTOR,

THANKS FOR YOUR LETTEROF 2'D, POSTAL, AND SEEDS. THE LATTER ARE IN THE GROUND, AND EXCEEDINGLY APPRECIATED.

I REALLY WAS NOT CONSCIOUS, WHEN I WROTE MY LAST LETTER, THAT IT WAS THE FIRST SINCE YOU LEFT US - WE TALKED ABOUT YOU SO OFTEN THAT IT SEEMED IN FREQUENT COMMUNICATION WITH YOU.

I MAY SAY, NOW, THAT THE CRITICAL PERIOD OF THE YEAR IS PRACTICALLY OVER, THAT I HAVE NOT HAD SO COMFORTABLE A WINTER FOR SOME TIME. A SPELL OF GIDDINESS, ALMOST EPIDEMIC AT THE TIME, IS ALL I HAVE FELT OF THE CHANGE OF SEASONS. MY EYES, TOO, ARE DECIDEDLY STRONGER - QUITE AS STRONG AS MY HEAD, THE LATTER OFTEN GIVING OUT BEFORE THE FORMER. I AM STILL IN A GREAT MEASURE PRECLUDED FROM GENERAL READING, HOWEVER. AS I AM GOING TO OREGON AGAIN IN SUMMER, I SUPPOSE I WILL HAVE A CHANCE TO LAY IN A FRESH STOCK OF RESISTENCE.

I HOPE YOU WILL GIVE YOURSELF ANOTHER SIMILAR OPPORTUNITY, AND NOT LET THE PATIENTS GET HOLD OF YOU AGAIN. NOW THAT THE SOUTHERN ROUTE IS OPEN, DON'T YOU FEEL AS THOUGH IT WAS TIME FOR YOU TO THINK OF GOING OUT ON A JAUNT, IN TIME TO SEE THE COUNTRY AT ITS BEST? - IN A FEW WEEKS IS THE TIME TO SEE GILIAS BY THE TOWNSHIP, AS YOU PASS OVER THE PLAINS YOU SAW SO ARID LAST SUMMER.

ABOUT THE VITIS : I DON'T PLEAD GUILTY - HAVE NO NOTION OF THROWING RIPARIA AND CORDIFOLIA TOGETHER, EXCEPT AS RESISTENT STOCKS, LIABLE TO "PHYLLICOLA" (HORRIBLE HYBRID!). DON'T THINK I CAN FIND ANY PASSAGE IN MY PAMPHLET THAT JUSTIFIES YOUR ACCUSATION!

PARTICULAR THANKS FOR THE MILLARDET PAMPHLET - CAN I KEEP IT? - IT IS JUST TO THE POINT AT THIS TIME, AND I THINK WILL BE REPUBLISHED HERE IN ITS ESSENTIAL POINTS, BY THE VIT. COMMISSION. THE REPORT WAS SENT YOU, I PRESUME, BY MR. WETMORE OR DR. BLEASDALE. THE COMMISSION IS CONTINUED FOR TWO YEARS WITH ENLARGED POWERS OVER BUGS OF ALL KINDS. IT WILL IMPROVE AS IT GROWS OLDER - ALL THINGS MUST HAVE A BEGINNING! -- SO FAR THERE HAS BEEN NO APP'N FOR THE CONTINUATION OF MY SPECIAL WORK - BUT IT MAY BE DONE AT THE SPECIAL SESSION, YET.

ALL SEND KIND GREETINGS AND HOPE TO SEE YOU AGAIN SOON!

YOURS FAITHFULLY

E. W. Hilgard

Rec May 20
Ans — —

Berkeley, MAY 15, 1891.

DEAR DOCTOR,

I HAVE BEEN LOOKING FOR YOUR NAME IN THE PASSENGER LIST FOR WEEKS, IN VAIN, AND NOW A LETTER FROM ROSA TELLS US THAT YOU ARE LAID UP , -- AND WITH THE GOUT, BEGINING AT THE BIG TOE, AT THAT! - WELL, I HAD NOT EXPECTED THAT OF YOU - YOU MUST HAVE BEEN LIVING TOO HIGH SINCE YOU GOT HOME. - AND WE ARE ALL REALLY DISAPPOINTED - THE SPRING FLORA IS FAST GIVING WAY BEFORE THE ADVANCING DROUGHT, AND IN A FEW WEEKS THERE WILL BE THE SAME DUSTY PLAINS AND BROWN MOUNTAINS THAT YOU SAW BEFORE. UNLESS, INDEED, YOU SHOULD FOLLOW ME TO WASHINGTON TERRIT., WHITHER I AM BOUND A FEW WEEKS HENCE. NOW THAT VILLARD IS DIRECTLY INTERESTED IN THE N.P., HE WANTS TO KNOW SOMETHING OF WHAT IS ON THE ROUTE, AND I AM TO TAKE THE EASTERN SLOPE OF THE CAS[C]ADES, FROM THE DALLES UP. I WISH YOU WOULD JOIN THE PARTY FOR A WHILE, ANYHOW!

MY HEALTH IS A GOOD DEAL BETTER THAN IT WAS A YEAR AGO AT THE END OF MY COURSE, AND I THINK I CAN STAND A MOUNTAN TOUR VERY WELL, AND WITH PROFIT. I THOUGHT OF TAKING EUGENE ALONG, BUT HIS MOTHER THOUGHT SHE COULD NOT DO WITHOUT HIM, AND BRIBED HIM TO STAY BY THE PROMISE OF A COLUMBIA BICYCLE. BUT WITHIN TEN DAYS OR SO, A LIGHT CATARRH THAT HAS STUCK TO HIM FOR A YEAR, MORE OR LESS, HAS SEEMED TO DEVELOP INTO A BRONCHITIS, PROBABLY IN CONSEQUENCE OF HIS GROWING TOO FAST, FOR HE IS 'WAY ABOVE HIS MOTHER NOW. I AM GOING TO HAVE HIM EXAMINED TO-MORROW, TO SEE IF ANYTHING SERIOUS IS THE MATTER. IN ANY CASE, I SUPPOSE HE WILL HAVE TO LEAVE THIS FOGGY CLIMATE FOR A WHILE, BUT WHERE TO SEND HIM IS THE QUESTION, AS MY TRIP MIGHT BE TOO HARD ON HIM. NOUS VERRO[N]S - BUT IT IS A VERY UNEXPECTED AND GRIEVOUS CONTRETEMS, IF NOTHING MORE. HE HAS INHERITED A TENDENCY THAT WAY FROM ME, I AM AFRAID, AND IT MAY BOTHER HIM AS IT DOES ME, IF NOTHING WORSE COMES. HIS MOTHER ''TAKES ON DREADFULLY' ABOUT IT, THE MORE AS SHE MAY THUS HAVE TO STAY ALONE WITH THE GIRLS FOR TWO MONTHS. I WISH I COULD PERSUADE ROSA TO COME AND STAY WITH HER - SHE WILL HAVE AN OPPORTUNITY TO RETU[R]N WITH VILLARD SOME TIME IN FALL, AND IT WOULD TAKE HER AWAY FROM THE HORRORS OF MALARIA THAT FOLLOW AN OVERFLOW SUCH AS YOU ARE HAVING. SUPPOSE YOU EXERCISE YOUR POWERS OF PERSUASION ON HER, AND COME ON WITH HER - I HAVE NO DOUBT VILLARD WILL FURNISH HER A PASS IF SHE WISHES TO COME!

THE MAIL IS ABOUT TO CLOSE AND SO I MUST DO THE SAME. LITTLE ALICE , WHO IS AT MY ELBOW, AS WELL AS THE REST, SEND YOU KINDEST GREETINGS, AND WISH YOU WOULDN'T GIVE UP COMING!

YOURS FAITHFULLY

E. W. Hilgard

Rec June 20

University of California,

COLLEGE OF AGRICULTURE.

Berkeley, JUNE 14, 1881.

DEAR DOCTOR,

INCLOSED I RETURN THE LETTER OF MR. MILLARDET. I AM IN PROCESS OF PACKING-UP, TO GO TO OREGON IN THE MORNING, ACCOMPANIED BY EUGENE, AND LEAVING BEHIND SENORA IN GREAT DISTRESS. I HOPE YOU WILL STILL BE HERE SOME TIME THIS SUMMER, AND HELP TO BRIGHTEN HER UP. - EUGENE HAS BEEN IMPROVED BY ''ATOMIZING'', BUT A CHANGE WILL YET BE EXCEEDINGLY BENEFICIAL TO HIM! - I FIND MYSELF BOUND FOR A DIFFERENT COUNTRY FROM THE ONE I EXPECTED, VIZ. THE WESTERN SLOPE OF THE CASCADES, SOUTH OF PUYALLUP; AND IT WILL BE A PRETTY ROUGH TRIP. IF TOO ROUGH FOR EUGENE, I WILL SEND HIM BACK.

I WRITE IN A GREAT HURRY - MORE ANON!

YOURS FAITHFULLY

E. W. Hilgard

Rec March 26
Ans — 27

BERKELEY, CAL., MARCH 20, 1883.

MY WIFE JUST TOLD ME TO SAY THAT SHE THINKS YOU TREATED US SHABBILY IN SAYING NOTHING ABOUT THE PORTRAITS OF THE CHILDREN WE SENT YOU ABOUT NEW YEAR; BUT SHE WILL FORGIVE YOU IF YOU COME TO PAY US VISIT THIS SUMMER! I MAY BE AWAY IN MONTANA FOR THREE MONTHS, ESPCIALLY IF I SHOULD NOT ENTIRELY RECOVER FROM MY THROAT TROUBLE BEFORE THAT TIME. THE SITUATION NOW IS THAT THE ABNORMAL THICKENING OF THE LARYNX TISSUES IS DONE AWAY WITH AND I CAN TALK WITHOUT EXERTION,BUT AFTER A WHILE THERE COMES AN UNEASY FEELING AND FINALLY A PAINFUL RETENTISSEMENT IN THE TRACHEA AND RIGHT BRONCHUS. HOWEVER, MY GENERAL HEALTH IS EXCELLENT, AS MY HEALTH GOES; AND I HOPE THIS REMNANT MAY BE OVERCOME IN DUE SEASON.

THE CHILDREN'S EYES ARE IMPROVED AND THEY ARE STUDYING ON HALF-TIME, ANYHOW: EUGENE WILL , I HOPE, PASS HIS ENTRANCE EXAMINATIONS TO THE UN. IN JUNE. SEA. IS WELL AS USUAL, EXCEPT WHEN SHE WORRIES OVER ME TOO MUCH. SHE AS WELL AS THE CHILDREN JOIN ME IN KINDEST GREETINGS TO YOU!

YOURS FAITHFULLY

E. W. Hilgard

Rec May 12th

BERKELEY, CAL., MAY 6, 1883.

DEAR DOCTOR,

YOURS OF II'TH ULT. WAS DULY REC'D. I HAVE BEEN SO HARD RUN WITH WORK THAT I MUST TAKE SUNDAY FOR LETTER WRITING, AND SOMETIMES CAN HARDLY GET AT IT THEN!

THANKS FOR LESQUEREUX'S LETTER, WHICH I HEREWITH RETURN. AS I HAD WRITTEN TO HIM I GOT ONE FROM HIM DIRECTLY, NOT LONG AGO, WITH, OF COURSE, NOTHING ADDITIONAL. - WHATEVER THAT FOSSIL MAY BE, IT IS AN EXTREMELY INTERESTING ONE GEOLOGICALLY . NO A VESTIGE OF IT HAS BEEN FOUND IN THE MODERN ALLUVIUM WHEN EXAMINED BY THE SAME METHOD AS THAT USED IN THE CASE OF THE OLDER DEPOSITS, WHICH IS THIS: THE SAND OR CLAY :IT IS RARE IN THE LATTER: IS SHAKEN UP OR BOILED WITH WATER IN A TEST TUBE 6 INS. LONG, AND AFTER ALLOWING 25 SECONDS SUBSIDENCE, THE TURBID WATER POURED OFF DEPOSITS IN SOME CASES CONSIDERABLE NUMBERS OF THIS ORGANISM. THE OPERATION IS THEN REPEATED ON THE ORIGINAL MASS IN THE TUBE, 5 SECONDS LESS OF TIME BEING IN SUCCESSION ALLOWED FOR SUBSIDENCE. THIS BRINGS THE LARGER FORAMINIFERA :IN CASE OF MARINE DEPOSITS:, AND THE DIATOMS. EACH SEDIMENT IS EXAMINED SEPARATELY UNDER DIFFERENT POWERS, INVOLVING OF COURSE A GOOD DEAL OF WORK, WHICH MY FRIEND DR. HOPKINS HAS BEEN DOING FOR ME.

AS THE MATTER NOW STANDS, THIS FOSSIL SEEMS TO CHARACTERIZE THE DEPOSITS OF THE PERIOD IMMEDIATELY PRECEDING THE PRESENT ALLUVIUM, OR WHAT I HAVE CALLED THE PORT HUDSON GROUP. IT SEEMS THAT AT MEMPHIS AND FOR SOME DISTANCE BELOW, THIS AGE IS REPRESENTED , NOT BY CLAYS, BUT BY MORE OR LESS GRAVELLY SANDS, UNDERLYING THE ALLUVIUM, WHICH EXCEPT IN THE CASE OF OLD RIVER BEDS, IS RARELY OVER 40 FEET IN DEPTH, AND IS WANTING ALTOGETHER IN A LARGE PORTION OF THE YAZOO AND TENSAS BOTTOMS. THIS OLD DEPOSIT HAS FILLED THE DEEP TROUGH EXCAVATED INTO THE TERTIARY BY THE DRIFT FLOODS, IN ONE CASE TO A DEPTH OF OVER 248 FEET BELOW HIGH-WATER MARK, THE TERTIARY NOT HAVING BEEN REACHED AT THAT DEPTH. I HAVE IDENTIFIED THE LATTER AS THE OLDEST MARINE STAGE, THE LOWER CLAIBORNE, AS FAR SOUTH AS LAKE PROVIDENCE. - IT IS FUNNY THAT SUCH AN INNOCENT THING AS THAT ''SPORECASE'', OR WHATEVER IT IS, SHOULD HAVE BECOME EXTINCT BETWEEN THE CHAMPLAIN EPOCH AND OURS! - I RATHER GUESS IT MUST BE ALIVE YET IN THE BOTTOM, AND DOES NOT OCCUR IN THE RIVER ALLUVIUM FOR THE SAME REASON THAT NOTHING ELSE DOES - BEING TRITURATED TO PIECES BY THE EDDYING SAND,LEAVING ONLY ACTUAL LOGS TO SURVIVE. FROM WHATEVER,CAUSE, THE FACT IS THAT NOTHING RECOGNIZABLE IS LEFT IN THE PRESENT ALLUVIAL DEPOSIT

- NO, I DID ONCE FIND A BIT OF CALICO, AND A DEPOSIT OF PINE SHAVINGS, B BUT IT WAS NEAR A TOWN.

SO YOU ARE LIKELY TO GO TO EUROPE, AND I HOPE IT WILL DO YOU GOOD - I WISH I COULD GO MYSELF! FOR THE PRESENT SEASON I AM BOUND FOR MONTANA, DETERMINED TO STAY OUT UNTIL MY THROAT GETS ALL THE BENEFIT IT CAN GET FROM MOUNTAIN AIR. IT IS CERTAINLY MUCH IMPROVED, BUT YET FAR FROM GIVING THE LIBERTY TO TALK AS MUCH AS I OUGHT TO EVEN IN ORDINARY LIFE, LET ALONE IN LECTURING. I HAVE WORRIED THROUGH A PART OF MY COURSE, BUT WILL BE GLAD WHEN IT IS OVER. MY GENERAL HEALTH IS QUITE AS GOOD AS IS HAS BEEN FOR YEARS - I CAN EVEN EAT MORE FRUIT THAN I HAVE DONE SINCE I CAME TO CAL. THE REST ARE WELL, AND THE CHILDREN SEND GREETINGS AND THANKS FOR THE STAMPS. EUGENE WILL ACCOMPANY ME TO THE MTS. AFTER MAKING HIS ENTRANCE EXAMINATION TO THE UNIV. IN JUNE - HIS EYES ARE BETTER, BUT ALICE'S ARE STILL QUITE TROUBLESOME. THEY ARE ALL GROWING UP VERY FAST - EUG. OVERTOPS ME, AND LOUISE IS NEARLY AS TALL AS HER MOTHER NOW, WITH PROMISE OF PLENTY MORE TO COME.

FOR THE FIRST TIME IN MY EXPERIENCE OF YOU I NOTE SOME DESPONDENCY IN YOUR :PREVIOUS: LETTER. OF COURSE, NONE OF US ARE AS YOUNG AS WE USED TO BE; BUT THE ANTECEDENTS ESPECIALLY OF THE ENGELMANN BRANCH OF THE FAMILY OUGHT TO MAKE YOU DETERMINED TO HOLD OUT TILL 90 ANY WAY; JUST AS I, WITH THE PAULIS BEFORE ME, INTEND TO HOLD OUT FOR A WHILE YET, WITH ONLY SUCH DISCOUNT AS GROWING UP IN ILLINOIS INVOLVES. I AM JUST GETTING WELL INTO MY WORK, ABLE TO THINK BETTER AND MORE COMPREHENSIVELY THAN EVER; AND IT WOULD BE A WASTE OF MATERIAL TO GIVE UP!

REMEMBER ME KINDLY TO GEORGE JR. AND WIFE. ALL JOIN IN BEST GREETINGS TO YOU!

Yours faithfully
E. W. Hilgard

DEAR DOCTOR,   E. Hilgard Berkeley

CAN YOU TELL ME WHAT THE INCLOSED ORGANISM BELONGS TO? - I INTERPRET IT AS A SPORE-CASE OF SOME KIND, BUT CAN'T IDENTIFY IT. IT IS IMPORTANT AS THE LEADING FOSSIL OF THE ''CHAMPLAIN'' PERIOD OF DEPRESSION WHEN THE MISSI. BOTTOM PLAIN, AT LEAST UP TO MEMPHIS, WAS A SWAMP, IN WHICH THE ''BUCKSHOT'' SOIL WAS BEING DEPOSITED FOR THE BENEFIT OF FUTURE COTTON-PLANTERS. - IT DOES NOT OCCUR IN ANY OF THE DECIDED RIVER DEPOSIT QUERY, DOES IT BELONG TO ANY PLANT NOW GROWING IN THE BOTTOM SWAMPS? - I HAVE BEEN THINKING OF YOUR FAVORITE ISOETES; BUT NOTHING THAT I KNOW OF FITS EXACTLY. IT MIGHT BELONG TO A MOSS GROWING ON THE CYPRESS TREES ABOVE, AND FALLING IN; THAT WAS MY FIRST IDEA, BUT I CAN'T FIND A MOSS THECA TO FIT IT, EITHER.

I AM WORKING UP THE BORINGS OF THE MISS. RIV. COMMISSION FROM MEMPHIS TO LAKE PROVIDENCE, AND THIS FOSSIL IS IMPORTANT IN THE IDENTIFICATION OF CORRESPONDING DEPOSITS.